L. case—
Injury—

THE

AMERICAN PHRENOLOGICAL JOURNAL

AND

MISCELLANY.

(NEW SERIES.)

Vol. IV. June, 1842. No. 6.

ARTICLE I.

"Lecture on Phrenology, by Frank H. Hamilton M. D., Professor of the theory and practice of Surgery in Geneva Medical College, and the Vermont Academy of Medicine. Delivered before the Rochester Athenaeum, Feb. 9th, 1841. By request."

REVIEW.

(Continued from page 128.)

Dr. O. K. Sammis, of Philadelphia, related a case that came under his practice last fall. A child of about two years old, took a violent cold, and appeared to experience the keenest of pains between the ears, the head at that part being very sore. Meanwhile, the child was most violent in temper, and on the slightest provocation, would throw itself furiously upon the floor, and strike, bite, scream, beat the floor, even with his head, and showed more rage and violence than he ever saw in any other child in his life. This violence was followed by a copious discharge from the ears, and a subsiding of its anger. Before the attack, the child was well disposed, and also was a good child after it. In other words, both the *organ*, and also the *faculty* of Destructiveness were inflamed and restored together.

Case

A few days ago, a friend of mine, Mr. Francis, book-binder, in William st., near Fulton, New York, invited me to visit a lady of his acquaintance, who resides in Bleecker st., near Wesleyan place, this city, who, from being gay and fashionable, had, of late, by attending a series of Methodist meetings, become deeply exercised upon the subject of religion, and who had been much afflicted with swellings and sores on the *top* of her head. In conversing with her upon the state of her feelings, she stated to me that her religious exercises had been

ever imagined the human mind could experience. She knew and felt the importance of becoming religious, yet loved worldly pleasures, and the amusements of fashion, parties, &c., too well to give them up. This struggle continued till she finally despaired of salvation, imagining that she had resisted these divine influences till it was too late to be saved. Her mind remained in this awful state for nearly a week, finding fault with the Deity, and indulging despair. Her distress of mind even banished sleep from her eyes. At length, she experienced relief; and, soon after, a lump or gathering appeared upon the organ of Marvellousness on the *left* side of the head, and encroaching somewhat upon Hope, accompanied with numbness and a dull, heavy pain in the whole of the top of her head. This lump gathered and broke. Another followed, and at the time of my visit, a third was gathering upon *Veneration*. She stated that when the top of her head was thus numb, she would be dull and stupid in her religious feelings, and could not account for it.

I told her that she had induced the attack by over-exercising the religious organs, which had inflamed them, and caused the pain and ulceration, and directed recreation, exercise, and abstinence from all stimulants, tea and coffee included, the latter to lessen the inflammation of the whole system, and the former to divert the blood from her head to her muscles, and to wet the top of her head in *cold water*. At this she evinced surprise, because she said when she felt the worst, her head was so hot on the top that she wet it in cold water to sooth the pain, and her *physician* had attributed these gatherings to this wetting of the head. What a simpleton! Wetting her hands would have produced these ulcers just as quick! This shows how successfully Phrenology may be applied to the cure of mental diseases, and that no physician should be ignorant of it. A *phrenological* physician would have cured her head in the outset.

The point of this fact is this. Her excited religious feelings heated her *organs* of Marvellousness and Veneration, so as to inflame and disease them. This disease finally formed three abscesses exactly upon the *organs* brought especially into action in a methodist revival, through which it passed off.

If Dr. Hamilton or any other one doubts any portion of this report of the case, he is referred to Mr. Francis, or, I will accompany him to No. 20 Bleecker-st., where he will find *every particular* of this case exactly as it is here reported. Perhaps Dr. H would be glad to accompany me there in order to "*explain*" it away, or bring up the case in some of his lectures against Phrenology.

The fact that this young lady's grand-mother is now a religious lunatic, affords additional proof that these ulcers were produced by the excessive action of her religious feelings; or, that the *mental* derangement, and the *physical* disease, of Veneration were *cause and effect*, being *hereditary*.

Lawyer Plympton, of Boston, related to me a case in which the *organ* of Tune, and with it the musical *feeling*, were both preter-naturally excited, and in which the excessive disposition to sing was cured by reducing the heat and inflammation of Tune, which were very apparent. I received a written statement of the case from Mr. P., and reserved it for publication in this connexion, but find it misplaced, and have written for another; which, when received, will be published in the Journal.

Scarcely a month passes in which some fact of this kind is not related to me; and, averaging the three and a half years of the existence of the Phrenological Journal, two new, original, pathological facts have been recorded in it every month. No. 1, Vol. I, contains one, reported by Dr. Miller, of Washington, D. C., physician to President Harrison, at his death. A boy received a kick from a horse, above his eye, which inflamed the *organ* of Tune, and excited an uncontrollable desire to *sing;* which diminished as he grew better In No. 5, Vol. I, the case of a very interesting character is given, in which the organ of Destructiveness was powerfully excited, even to fury and raging madness, accompanied with a most excruciating pain *between the ears.* In the same volume, another similar fact is reported by a lawyer, of a negro boy at the South, who became outrageous and violent, and complained of a severe pain around his ears. Vol. II, also contains a report from Dr. Monker, of Waterville, N. Y., of a pious, good man, who became highly excited upon religious subjects, and finally, a religious lunatic, and whose brain, on dissection, was gorged

with blood on the *top alone*—those *organs* being inflamed, the *functions* of which were deranged.

The same volume, I think in the July No., contains a communication from myself, in which a dozen or more facts, of a class quite as positive as any introduced into this reply, and accompanied by references to witnesses of them *now alive.* To repeat them here, or even to give a synopsis of them, is not necessary; and yet it *is* necessary for Dr. H. to "explain" them away, or else admit the truth of Phrenology. The one reported by Dr. Reid of Rochester, in Vol. III, is also quite to the point, besides showing that these facts can occur, even at Dr. Hamilton's own door, and he not know them.

What Dr. Hamilton says by way of explaining away the fact reported by Dr. McClellan, of Philadelphia, would have been less conclusive if the full force of that fact had been given, exactly as it transpired. The subject, Thomas Richardson, received a blow on Self-Esteem, which caused a bony tumor to form, and develop itself internally, as well as externally, crowding down upon the back part of Firmness, the whole of Self-Esteem, and also Concentrativeness, as will be seen on the cut which accompanied it, or on the bust now in my collection; and, in describing the state of his mind, Mr. R. perfectly described the effects produced by small Self-Esteem and Concentrativeness.

The facts given in No. 3, of the present volume, in relation to Herod the Great, to the sudden and powerful excitement of Philoprogenitiveness in a mother by the imminent danger of her child, and the accompanying pain in this organ, and of the curing of a deranged state of the domestic feelings, by blistering the domestic *organs*, reported by Dr. Smiley, of Philadelphia, are of a character too forcible, too unequivocal, to be denied or evaded, even by the logical ingenuity of Dr. Hamilton. And what is more, my main motive in answering Dr. H., and especially in giving my reply in the Journal, was to present such new pathological facts as have accumulated on my hands within a year, as well as to present the facts and arguments in support of Phrenology drawn from the whole animal kingdom.

But all these pathological facts are only as a "drop in the bucket," compared with the whole that have been published.

"Gall on the cerebellum," a work which every physician should peruse, is literally *full* of them. So is the Edinburgh Phrenological Journal; and so are the works of Gall and Spurzheim. If Dr. H. has not read these works, he certainly is not prepared to write against Phrenology; but, if he has read them, he is bound to refute them. Has Dr. H. ever read the statement of Baron Larey, surgeon-general of Bonaparte's army, who lays it down as a general rule, that all soldiers who have been wounded in the cerebellum, are incapable of becoming parents? If not, it is high time he had, and if he has, I call on him to explain it away.

But more. Even "*out of thine own mouth*, do I condemn thee." On p. 13, he says, "We once attended a patient, with a temporary derangement, who fancied there were three fires in his brain, all singing together, and each an octave above the other; and, he was constantly trying to catch the notes with his own voice, which case, if allowed to prove any thing, would locate the organ of Tune in the *top* of the head, for that was the seat of the pain." Here is a plain case of the deranged *function* of Marvellousness, accompanied with pain in the top of his head, where the organ of Marvellousness is located. Strange that Dr. H. should have adduced so plain a case in proof of Phrenology, as an argument *against* it.

Let the reader now pause and contrast the evidences *for* the science, drawn from these pathological facts, with the lame, self-contradictory, and puny answer to them of Dr. H., and with the pretended facts adduced by him against it, and judge for himself which carries the stamp of truth, indelibly branded upon its front. And let him also remember that all those, here presented and alluded to, are but a *few* of the unnumbered thousands daily transpiring in all parts of the country, or even of those recorded in phrenological works. Let him open his eyes upon surgical facts affecting the head, that occur around him, and he will need no farther proof that Phrenology is true; and, also that Dr. H. either knows but little, at least upon this subject, or else misrepresents what he does know.

I repeat that the bearing of these facts is positive and conclusive, as much so as the death of Mr. Juror was positive evidence that he could not appear in court. And what is more, all that Dr. H. has said on this subject, has only tended to

prove it to be invulnerable, and to be founded in the nature of mind, and supported by all the facts that bear upon this subject. Were I in Dr. Hamilton's place, I certainly should feel ashamed of my position in relation to these pathological facts.

(To be continued.)

ARTICLE II.

EXISTING EVILS AND THEIR REMEDY.—No 4.

THE CREDIT AND BANKING SYSTEMS, both essentially the same, appeal to and excite *Acquisitiveness and Hope mainly* —organs already too large in the American head and character; and, therefore, they should *not* be stimulated. But it is the organ of *Hope in particular*, that they excite most—an organ altogether too large, especially in the northern States. The difference in the development of this organ between the United States and Canada, or between this country and England, is really astonishing, and coincides with the difference in the enterprise, the bold, venturesome, and almost chimerical spirit of our citizens, compared with the methodical, prosing spirit of the English. There is also something in our very atmosphere highly bracing and buoyant, sufficient, with only average Hope, to create a due share of enterprise; but, with *large* Hope, almost to ruin us. Now add to all this the prodigious stimulus of the credit and banking systems, added to Hope and Acquisitiveness combined, and I ask whether it is not abundantly sufficient to account for and cause the excesssive speculations of 1835 and '38—the mulberry fever, the western fever, and the speculations in merino sheep. To this development mainly, may be traced the pecuniary embarrassments that now afflict us. It builds our banks, and then brings crowding thousands to their counters, with unnumbered "*sixty days from date*," thereby rendering a man in moderate circumstances suddenly rich, and, money being abundant, disposed to pay more for things than they are worth. Not that the value of the *thing bought* has fallen, but the value of *money* has been depreciated by its abundance. When the value of this money is

brought back to its proper level, you have the dilemma in which we now find ourselves—the prices of things, and the value of the dollar *both* increased, which is a *double* disparity. There are three aspects in which the banking and credit system should be viewed.

1. That the basis of our currency should *not* be gold and silver, the value of which fluctuates with their scarcity or abundance, thereby destroying the *uniformity* of the currency, which is its most essential quality;

2. That no institution for *furnishing* a currency, should itself be a money making institution; from fear both of its being corrupted, and making over-issues; and,

3. The principle of loaning money upon interest is wrong, and will soon destroy *any* currency, however sound, because every fifteen or twenty years, according to the rate of interest, it doubles itself; so that any money making institution, however sound or honorably conducted, will soon swallow up, and lock up in its vaults, double the money it disburses.

1. In maintaining that *gold* and *silver* should *not* be the *basis* of any currency, and that the silver dollar should *not* give the value to the paper dollar, I attack an idea unusually entertained as the *only* basis of currency, the *only* standard valuation. Still, I think this point can be rendered self-evident at once, and by *a single remark*, which is this. If *specie* is the standard of valuation, every dollar in paper must have its dollar in specie in the banks, or it is good for nothing: for, if there are $100 in paper to $33 in specie, (which is the proportion of specie usually required for the bills,) then the other $66 or *two-thirds* of the paper money, are valueless, and worth no more per pound than *other* paper rags. Can anything be more clear than this? And yet, what bank can afford to have just as many dollars in specie in its vaults as it has *paper* dollars in circulation? Not one: for then, what would pay rent, clerk-hire, the salary of officers, &c.? Just in proportion to the issue of bills *over* the amount of silver in the vaults, will be the depreciation, the utter want of value in the bills. Acquisitiveness and Conscientiousness require the *full* amount of value *in specie*, in case specie is the *only* basis of the currency; which would effectually and for ever prevent every bank

from going into operation; for, what possible object could be gained by getting up a bank, or what possible mode is left of defraying expenses?

It is clear, then, that the *basis* of valuation should not be the precious metals, unless bank-bills are excluded from circulation, and specie *alone* used in making payments, which would be very inconvenient. But is there nothing *else* that can furnish this basis, or impart value to paper issues? Certainly there is; for, *any* thing, *every* thing that Acquisitiveness regards as *property*, will satisfy it, and thereby afford a proper basis of valuation and circulation. Hence, landed property, all the staple productions, all the *necessaries* of life, will satisfy this organ, and afford value to bank-bills.

Thus; a bank pledges for the redemption of a thousand dollars of its notes, a house and lot, fully worth, in all emergencies, that thousand dollars. The holder of these bills presents them at its counter, and requires their equivalent. The bank has not the silver, but offers the house. If he does not want the house, some other person does, and will give him what he does want for his bills, and take the house. In this way, the face of the bill is good to its full amount, and the bank *cannot* be drained, or rendered bankrupt, because this house cannot be shipped across the Atlantic, as specie can, which, by rendering it scarce, increases its value, and drains the banks, even of the 33 per cent of specie in their vaults, thus rendering their *whole* issue valueless. Meanwhile, the stockholders have pocketed, and probably squandered, the profits and stock both, and the bill-holders alone suffer. Just as long as *specie* is the basis of valuation, whenever our *imports* exceed our exports, (which is all the time,) the balance will be paid in bills; these presented at the counters of the banks, and the specie drawn and shipped, (because our bills will not pass in other countries,) leaving the banks drained, and consequently compelled to break, or else to contract their issues, either of which injures the holders; the former by rendering the notes valueless, the latter by rendering the money market tight; and deranging the business of the country.

If there could be no *other* basis to impart value to bank notes, the banking system must either fall itself or else cause

the country to fall, probably both; but, there are other bases, and they should be resorted to. They are,

Real estate, the products of labor, such as dry goods, iron, wooden, earthen and other wares; manufactures, grains, eatables, and all the products of industry, and necessaries of life. But to this one proviso, special attention should be paid, namely, to see that, under *all* circumstances, the guarantee, or the security for the payment of the notes, should be *ample*, and even more than abundant, so that, at *all* events, the bills may be worth their full face.

But, as long as specie, that slippery, movable article, so liable to take to itself wings and fly away, is regarded as the basis of valuation, just so long the value of money will fluctuate, and the currency lack uniformity and stability, which are the main requisites of a *good* currency; banks will fail; brokers fatten on the losses of the people; and the people be cheated out of their laborious earnings.

So long, also, will bankers themselves fatten on their over-issues and enormous profits, and either revel in luxurious extravagance, thereby ruining themselves and families, or fraud will be used, banks robbed, legislatures bought and sold, party ends secured by their influence, and a speculating, selfish, harpy-like, and cheating spirit engendered among the people. I regard the banking system as it is now conducted, as all rotten—as a public curse, as legalized swindling in its worst form, and on a scale of millions at a sweep, and utterly unworthy the confidence of the people. And yet it is are so thoroughly fastened upon the very vitals of this people, that it *cannot* soon be shaken off, or remodelled, but will continue for years to plunder the people, curse the rich, and rob the poor.

One way of avoiding a part of their baleful influences, is, trading upon the *cash* principle. Trading on *credit*, is analogous to drawing money from banks, and, though not as bad in some things, yet it is worse in others. Thus, a young man starting in business, especially if Hope be large, will buy more than he can pay for; and, when his notes become due, he is pressed for that money which, when flush, he expended too freely. He makes a sacrifice to raise it; and, after struggling along for a time, breaks, being rendered desperate and misan-

thropic by his failure, his happiness destroyed, if not seeds of dishonesty engendered. Now if he had *paid down* for what he bought, and sold *for cash* at a small advance, all would have gone on smoothly; the comforts of life, instead of rushing upon him so fast as to destroy their value, would have accumulated *gradually* and every one duly appreciated; no bad debts would have disturbed his equanimity; no protests would have impaired his own credit, and a happy state of mind would have taken the place of that chagrin, and mortifi cation, and ill-feeling which has been continually rankling in his bosom. Doing a *cash* business, besides relieving note-givers from all anxiety as to paying their notes, would cheapen every thing we buy at least one-third. Business men who trust, always add a certain per cent for bad debts; so that those who *do* pay, are compelled to pay, not only for their *own* goods, but also for those who do *not* pay. Doing a *cash* business, will obviate all this. Has the reader never observed how much cheaper *cash* stores are than credit stores? Then patronise them. *Purchase* nothing till you can *pay* for it: rather do without it till you can pay.

It was upon this principle that the Journal was first established, and I intended it should have been rigidly enforced, but clerks who did the business of the second and third years, gradually yielded this point, till thousands of dollars are now standing on its books, of which I never expect to realize a dollar. This was one of the means of cramping it, and, but for my bringing in large supplies of money, from my practice of Phrenology, would have broken it. This fact determined me *not to send out another copy till it was paid for*, however responsible the applicant. The *cash* system is the only *correct* system of doing business, either of buying or of selling. "No trust," and "here's one thing and there's tother," prevent those fluctuations in the scarcity of money from materially affecting a *cash* business. It will also effectually prevent extravagance, and immediately relieve our pecuniary embarrassments. It prevents Hope from cheating you with "six months from date," I can pay this with ease, and allows Acquisitiveness no opportunity for becoming dissatisfied with losses, and for calling Combativeness, Destructiveness, and Cautiousness, so effectually and continually into action, as thoroughly to sour

the temper, engender suspicion and jealousy, even of friends, and a loss of both public and private confidence. "Short settlements make long friends," is a pithy proverb, imbodying this *cash* principle, and expressing the experience of the whole past.

ARTICLE III.

DISCOVERIES BY DR. BUCHANAN.

In October last, too late for insertion in the first No., Dr. Buchanan sent to the Journal a paper containing an account of some important discoveries in Phrenology and Physiology. Subsequent numbers have alluded to them, but the space devoted to Journal matter is really too circumscribed to publish matters of real importance as fast as they appear. That part of Dr. B.'s communication in which he replies to Mr. Sunderland, and complains of his not publishing a similar communication, is omitted; because Mr. S. published that communication since Dr. B. wrote this, so that it is unnecessary for the Journal to do it. Besides, though it is proper to award merit to whom merit is due, yet the true philosopher and Phrenologist will think less of the discoverer than of the the glorious truths discovered. But one self-evident remark is this: Mr. S. makes his discoveries *by the aid of animal Magnetism;* while Dr. B. has made his by some other process, which he has not thus far seen fit to reveal. (Philosophy hardly sanctions keeping any thing of importance a secret.)

The communication mentioned by Dr. B. as in progress for the English Phrenological Journal, will be cheerfully admitted into the *American* Phrenological Journal.

"LOUISVILLE, Ky., April, 22d, 1842.

To the editor of the American Phrenological Journal:

The last three numbers of the Phren. Journal have just been placed in my hands, by Prof. Caldwell. Not having seen it for some months, I was induced to suppose it had been discontinued. As you invite a reply from me to Mr. Sunderland's remarks, I change the destination of this and address it to you. I have prepared a communication about three times as long

of the most painful character, and to a degree greater than she as the present, for the Edinburgh Phrenological Journal, setting forth my discoveries in general terms more extensively—a copy of which I will send you for the Phren. Journal as soon as I have leisure. Have I not some right to complain that you should have omitted all notice of my discoveries which were *published last fall?*

When discoveries of such magnitude came into my possession, I felt eager to establish them immediately by crossing the Atlantic and giving demonstrations in London and Paris. The propriety of perfecting my discoveries as far as possible, has induced me to remain thus long engaged in their prosecution, and preparing for the press an exposition of what I have done. During this time some newspaper notices have appeared in reference to my experiments; but, the greater part of what I have been doing is entirely unknown to the public. I felt assured that while thus remaining in comparative obscurity, others would undertake such operations as I have been engaged in; but, regarding the discovery of cerebral excitability as a trivial matter compared with the science arising from it, I felt willing that others should attract the public attention to their own operations in this way, if any should be attempted, and directed my efforts to improving instead of propagating the science.

Hence, it is not yet known to the scientific world that discoveries have been made which show what are the psychological and what are the physiological functions of the brain, to such an extent as to make it requisite to substitute the term NEUROLOGY (science of the nervous substance) for Phrenology, (science of the mind.) Were the functions of the brain exclusively mental, the term Phrenology would be sufficient; but the corporeal are fully as important as the mental functions which it manifests. NEUROLOGY is the only admissible term for this department of science, as *Cephalology* and *Cerebrology*, being new and uncouth terms, would be incorrect; for the mass of nervous matter within and without the cranium is concerned in the manifestations of mind and life. Neurology is indeed a comprehensive term and in its fullest range of meaning as applied to man is, almost as comprehensive as Anthropology.

To this science I have invited public attention, and the investigation of the scientific. Having given demonstrations before the Board of Managers of the Medical Institute of

Louisville. That body, satisfied of the reality of the new science, adopted a resolution requesting three of the professors of the Institute to investigate the subject and report upon the facts and utility of Neurology One of the gentlemen appointed having been too closely engaged, during the session, in the duties of the anatomical department, the investigation has not yet commenced.

What Neurology is as I have taught it, will soon be illustrated by a small work which I am now preparing for the press, giving the outlines of the new science, and especially of its psychological portion. The results of my labors, while they elucidate physiology and revolutionize the details of Phrenology, throw a brilliant light upon Animal Magnetism. To this subject I must now allude, in consequence of the following paragraph in your editorial article:

"These accounts inform us that Dr. B. and Mr. P. declare themselves as having nothing to do with what is called Mesmerism. But they might just as well tell us that they have nothing to do with Phrenology or the brain. The truth is, they are afraid of the stigma which has been cast upon this name, and hence their disclaimers."

My name is here associated with that of Mr. P., of whom I know nothing beyond the statement of the newspapers, which represents him as repeating my experiments. Answering for myself, I would remark that I have NOT been engaged in making my Neurological experiments upon subjects in a magnetic or somnolent condition, but solely upon persons in their natural condition.

Those who know me will not suspect me of thus endeavoring to avoid any *stigma* which an unenlightened and tyrannical public sentiment may affix upon the votaries of science for seeking prohibited knowledge. I honor the cultivators of Animal Magnetism as the intrepid leaders and benefactors of their race; and, had I not a particular line of investigation for myself, leading to more important results, I would be actively engaged in the daily investigation of that subject. Let me beg to be held responsible for my own language alone, and not for what may be said about me. Let me say to you what I have been repeatedly compelled to say in "defining my position."

While ignorant scoffers, (disregarding the very meaning of the word Neurology, and probably ignorant of its etymology,)

N. B.

would assert that it was nothing but the old story of Animal Magnetism, Clairvoyance,&c.; others would assert that it was totally unlike and distinct—(both confounding the *science* of Neurology with *experiments* by which it was demonstrated,) and others, by a singular combination of skepticism and credulity, were led to adopt the laughable theory that I produced these results by the mere power of my will, controlling every one whom I touched or approached! and compelling them to feel such emotions as I willed them to experience!!

Such notions being afloat, I have been compelled to express myself frequently in public and in private, in something like the following manner: Neurology is a comprehensive science, including all the phenomena of mind and body. The Animal Magnetists are engaged in cultivating one department of this science, which is next in wonders; their results, although they seem incredible, are established by unanswerable testimony, and must, therefore, be received. The experiments which I am performing are different, as they are simply designed to illustrate the ordinary or nomal functions, and the pathology of the human mind and body. My operations aim at utility by explaining the machinery of life and the powers of each organ; those of Animal Magnetism, develop extraordinary or transcendental powers by the joint influence of two or more individuals. The phenomena thus developed are mysterious and wonderful; indeed we seem in a fair way to realize through these operations, that "truth is strange—stranger than fiction."

The present is indeed an important era. About fifty years since, the revolution commenced which is now in progress. Instead of the Mental Philosophy of former days, which was separated from Physiology, and was therefore a crude, inaccurate, and useless system, Dr. Gall gave us the science of Phrenology, in which Mental Philosophy, connecting itself with the congenial science of Physiology, became rational and *useful*. This constituted the first GREAT era of Anthropology.

In the present day, Phrenology, blending into a perfect union with the *whole* of Physiology, and extending its jurisdiction over the phenomena of Animal Magnetism, comes forth with dignity, a demonstrable certainty, and an importance which before were unknown, and bids fair, under the title of *Neurology*

to originate greater blessings to mankind than were ever anticipated by its illustrious founder, Dr. Gall.

To all who engage in this great work I would say, the field is ample enough for a million of laborers, and should our countrymen take the head and maintain it as we have begun, we may make the amplest return for the stores of medical and philosophical knowledge which we have derived from the land of our ancestors.

JAMES R BUCHANAN.

P. S. Please to correct the mistake of saying that I excite the organs by *friction*—I have *never* excited an organ by *friction*. I believe I sent you the proper documents respecting my discoveries last fall, and was surprised at not having heard from you. It is my design to visit the East very soon. J. R. B.

ARTICLE IV.

THE MENTAL QUALITIES IN PART HEREDITARY, NOT ENTIRELY ACQUIRED.

No Phrenologist disputes the proposition that genius and talents are, in part, the result of *cultivation;* but they *do* maintain that they are in part *hereditary*. They maintain that, as the form of the *face* is hereditary, inasmuch as children resemble their parents, so the form of the *head* also is hereditary, and this in part, determines the phrenological developments, and the characteristics of mind and feelings. Neither parentage nor education, *independently* of each other, produce intellectual greatness, or moral worth. The two require to be united.

Doubtless every reader of the Journal, has heard of Elihu Burritt, the learned blacksmith; and, also heard that, in one of his lectures, he maintains that talents and moral qualities are all *acquired*, and *not* influenced by parentage—that *every* man *can* become as great and learned as *any* man ever *has* been, or ever *will* be. This doctrine is unquestionably erroneous; and, as it is at war with a leading doctrine of Phrenology, namely, that certain forms of the head, and with them cer-

tain developments are hereditary, the injurious tendency of his lecture should be counteracted. It is, therefore, that the accompanying letter addressed to him, is inserted in the Journal. It is the second of a series on that subject; the first of which being introductory, and not bearing so directly upon the one point under discussion, is omitted. The last will be found particularly interesting and instructive, as it contains the parental histories of a great number of distinguished men, showing that causes in operation before their birth, exert an influence upon their subsequent characters.

In passing, it may be added, that the phrenological developments of Mr. B. are most remarkable. His Individuality, Even uality, Form, and Locality—the very faculties he evinces in a degree so astonishing—are far more fully developed than in any other head in our collection. Language is also large, but he learns to *read* languages rather than to *speak* them, the former requiring the faculties just named, the latter, that of Language. The reader is invited to call and examine his bust, for it is a literal wonder—a phrenological prodigy.

The readers of the Journal will not have forgotten that its prospectus advertised a work on hereditary influences by the Editor, to be commenced as soon as the present work on Education, and another on Matrimony, are completed.—Ed.

New York, Dec. 2d, 1842.
No. 1 Bond Street.

Mr. Elihu Burritt,—You, my dear sir, gave your experience as a "per contra" to all the "vagaries" in the world about "native genius." Now, this was taking for *granted* the very thing that ought to have been *proved!* Or, as logicians say, it was "begging the question."

Now, dear sir, permit me to say, as an offset to your statement on this subject, that I have known scores of young men, who have spent more time (diligently, too,) in acquiring a very imperfect knowledge of *two* languages, than yourself, if I am rightly informed, in acquiring a knowledge of *fifty* and *two!!*

But leaving your own case for the present; I wish to inquire concerning your numerous, and interesting historical facts, whether your conclusions were found legitimately in your premises; or, whether your conclusions wer not always broader

than your premises, and therefore *illogical!* Pardon me if I here give an instance of your facts, and your deduction from those facts, (as I understood you,) in a syllogistical form.

"Demosthenes was not born an orator; for, he made his first appearance before the public, as a rude, uncouth stammerer; and, it was not until he used the most untiring zeal, and persevering industry, that he became an orator:

But every man is, (being thus defective at first) possessed of the same powers for improvement as was Demosthenes;

Therefore, every man may, by the same perseverance become a Demosthenes in oratory!"

There are, in this syllogism, two things *assumed*, which are the very things that ought to have been first proved, unless *admitted*, as *self-evident*! First; it is *virtually* assumed that every man has the same material to work upon: and, secondly; it is *formally* assumed that he has the same powers with which to improve, and refine that material; but these are the very things *not* admitted as self-evident; ergo, they need to be proved. And should either of them be *disproved*, or even *not* proved, the syllogism falls to the ground. Let us illustrate.

The beautiful columns of the Custom House, being originally shapeless masses of rock, required immense labor and toil to give them their present form and polish. But all rock (being thus shapeless,) is capable of receiving the same amount of labor;

Therefore all rock may be converted into like beautiful columns.

You will see that this conclusion is illogical, because not found in the premises; unless you assume *virtually*, as before, that all rock is, in *quality* the same: then, indeed, we should admit that the conclusion was found in the premises; but the premises being untrue, the conclusion is fallacious.

I believe that *all* men are susceptible of improvement, and that many, in the retired shades of private life, are susceptible of the highest state of mental cultivation: and, believing this, I rejoice at every effort that is made to call them forth from obscurity and nothing ness. I admire both the truth and the poetry of the following familiar lines from Gray's elegy in a country churchyard.

"Perhaps in this neglected spot is laid
Some heart once pregnant with celestial fire!
Hands, that the rod of empire might have sway'd,
Or wak'd to ecstasy the living lyre!
Some village Hampden, who, with dauntless breast,
The little tyrant of his fields withstood,
Some mute inglorious Milton here may rest,
Some Cromwell, guiltless of his country's blood!
Full many a gem of purest ray serene
The dark unfathom'd caves of ocean bear!
Full many a flower is born to blush unseen,
And waste its sweetness on the desert air!"

To return to Demosthenes: let us inquire how much of *native* talent he possessed, and how much he owed to *art* and *culture?* He certainly had all the elements of oratory to begin with! He had, if you please, the marble in the quarry. He had a wonderful memory; (not quite equal perhaps, to Themistocles, who could call by name, every man in Athens,) he had a large development of Language, giving him great command of words; for, a jumbled rapidity of enunciation was his chief defect. At the time he was hissed from the stage, he had the most vivid imagination, as all his speeches demonstrate; or, as the Phrenologist would say, "large Ideality—Causality and Comparison prominent—an uncommon development of the perceptive faculties, giving him the keenest insight into the designs of his country's foes—he had large Benevolence, inciting to great exertions for his country's good—he had Firmness which sustained him under all mortifications and trials, except that of the battle field; here it failed him, for he had little Combativeness—and, to crown all, he had large Hope, which painted the glittering rainbow of promise on the bright visions of the future, and told him if he failed *to-day*, he would succeed *to-morrow!*"

I have thus spoken of him, in a phrenological style, not because I wish to take any thing for *granted;* that is *not granted*, or to make a draught upon the credulity of any one, but as a matter of taste. I adopted this style, in which to set forth the *well-known* traits of his mind and character! And now, what were his defects? He was a stammerer, and had an un-

couth shrug of his shoulder! He was the block of marble, but needed *polishing*—and for this he went to his cave.

Most respectfully yours, &c.,

M. S. CLAPP.

E. BURRITT, A. M.

Some good ideas. Read.

ARTICLE V.

HINTS TO PHRENOLOGICAL SOCIETIES.—No. 1.

Few associations for the study or propagation of Phrenology, have long maintained their interest, or even existence. The Boston Phrenological Society gave up the ghost long ago, but not till after societies in Philadelphia, Baltimore, and many other places had expired. Indeed, I know of but a single phrenological society now in active operation; and that one is in Philadelphia. What is the New York Phrenological Society now doing? What has become of the London and Edinburgh societies? Asleep, all!

Why this death of most, and lethargy of all the rest? Is it want of interest in their *subject matter?* Far from it; so far, that probably no subject is more interesting or instructive, or that, properly conducted, would elicit more attention.

The value and importance of these associations, are too self-evident to require proof. It is really a matter of surprise that, notwithstanding all the continually increasing interest manifested in regard to Phrenology, so few associations for prosecuting this delightful and most profitable study, have been formed. Among the advantages they afford, is, that at a trifling expense to each, facilities in the way of books, specimens, of casts, &c., can be collected which no one individual of the society could afford, much less each member. Another is, that each learns for all; and, by communicating to the others what he has learned, each of the others is in the possession of the knowledge which would have cost each separately much hard labor. This, like lighting one candle by another, renders none the poorer, but all the richer. Another is derived from that laudable emulation to promote the interests of the society,

which an association generally inspires; and another still, from that powerful *combination* of intellect with friendship, which quickens both by action.

What, then, can be the *cause* of their so generally falling through: that is, of their failing to excite an interest sufficient to keep them alive? In what consists these errors, evils, or omissions which produce their dissolution? *In their organization and management.* I will specify a few.

1st. They are *too philosophical.* They lack *matter-of-fact,* and are too speculative. They consume their time by reading prosy *essays,* instead of *examining heads.*

I said I knew but one active phrenological society that did much, and the course there adopted is the course here presented. In 1839, vigorous efforts were made in Philadelphia, to start a respectable society, but it failed; and on its ruins arose one, the *main* object of which is to *examine heads.* To facilitate this, each member invites a friend or child, whose charac ter he knows, and each marks off the numbers which he thinks express the relative size of his organs, and then they compare notes, and declare off the real character. Any one known to be remarkable for music, or mechanics, or mimicry, or any peculiarity of character or talent, is brought in, and the *interest* thereby kept up to the highest pitch. There is a certain something in the very nature of FACTS so *thrilling,* so *soul-stirring,* that the human mind is eager to see and experience them, and *this,* this ALONE, will keep a society, aye, *any* society, together. Give its members FACTS to feed upon, and, so far from requiring a *fine* to bring them together, they will pant for the delightful time of meeting to arrive. But, give them prosy *essays* of a speculative, inferential character, and they require a thong to whip them to the meeting.

2d. Let the by-laws and regulations be as few, brief, and simple as possible. The fact is, that very few of either are required. Presidents and vice presidents are hardly necessary; and, as to secretaries, let each member keep the "proceedings" in his head, as recommended in my work on education, and the improvement of the memory. As to a treasurer, and an annual tax to support the society, let money be raised mainly by *voluntary* presents or by subscriptions for specific objects,

and laid out at once. *No compulsion, no fines, no punishments* should ever be resorted to; for, if members will not do their duty *voluntarily*, they cannot be *made* to do it. Let all the punishment inflicted be, the interest lost by their non-attendance; and let the only inducement to attend be, the pleasure and profit derived from such attendance. This formal *organization*, this electing officers is mostly "in my eye;" and does not add a feather to the interest or value of the society, but detracts from both; for then, in the absence of their officers, the society is obliged to wait or disband.

One other suggestion as to funds. Let each member, from the abundance of his means, and according to his own tastes, make *presents* to the society. Thus: Mr. A. likes Combe's Constitution of Man, and buys and presents it to the society. B. likes Fowler's Phrenology, or Fowler on Matrimony, and buys and presents it. C. subscribes for the American Phrenological Journal, which he loans or presents to the society, and D. presents Gall's works, or Spurzheim on Education, &c. Another says: 'What a remarkably striking proof of Phrenology is afforded by the scull of Patty Cannon! Gentlemen of the society, I present you with a cast," and the society record the donor's name upon it. In this way you will need few funds, no officers, no formal organization as such, and will be able, at all times, to keep up and extend the interest, value, and utility of the science.

Another suggestion, analogous to the one already presented, in relation to exhibiting facts, and making observations. The Washingtonian Temperance society, have hit upon just the *best* plan in the world to interest and instruct a phrenological society. Let each member, during the week, make all the observations he can, and note them down, (in his head of course, for the reader knows that I reject written notes,) and at their weekly meetings, tell, in familiar language, and conversational style, his *experience*, what he has *seen*, &c., and if that does not stir up and draw out the members, they are dead indeed.

As already implied, every association requires a library of nearly all the works on Phrenology published. See how much *less expensive* this course is; for, if fifty Phrenologists in a village should each purchase a library for himself, the expense

would be fifty times as great as to have one library for the use of all. And then, too, it brings into powerful action some strong elements of our nature, especially Friendship and Benevolence, combined with intellect. Probably no ties of Friendship are stronger than those based on *intellectual* associations. Literary friends are the best of friends.

But *a cabinet of phrenological specimens*, is even *more* important. It affords members something to *see*, and some thing to *learn*. Thus: let the cast of Patty Cannon, be one of the number. An account of this notorious character is found in the Phrenological Journal; and the catalogue accompanying the specimens gives, (or should give in a table,) the size of all her principal organs, both large and small, so that with a phrenological bust, you are informed in what portion of the head to look for Acquisitiveness, or Destructiveness, or Marvellousness, and in the catalogue, you are told that such and such organs are small, full, very large, &c., as the case may be. Here, then, you have materials for a week's study on one specimens but, when you have it, you have it for life; and, after you have gone over a few specimens, organ by organ, thoroughly, you will be able to go over the others with facility and delight.

Most societies and individuals, regard these specimens as very expensive. Far otherwise. Twenty-five dollars will furnish a choice and invaluable collection of nearly a hundred of the most striking specimens, at prices ranging from 25 to 37½ cents each. Some will exceed that price, but not many.

In my next, I shall specify some of the best specimens by which to prove, illustrate, or learn Phrenology, accompanied with a short description of the leading characteristics, and relative size of the principal organs, and before closing this series of articles, give a *table*, like that in my work, showing the relative size of each organ in each specimen.

MISCELLANY.

I, my, and me, vs. we, our, and us.—As we, our, and us, are plural, they signify more than one, while I, my, and me, designate *one* person—the one using them. Now, as this Journal is edited by *one* person, the use of we, our, and us, and ourself, (what kind of gramman is *our-self?*) besides conveying an erroneous impression, is palpably incorrect. Though custom is allowed to make law, yet it cannot render that proper which is in its very nature improper, or make two of one. Hereafter, therefore, the Journal will be conducted in the singular number. If an apology for this departure from common usage be deemed necessary, or if it be censured as savoring of self-esteem, the answer is that it is RIGHT—apology enough for those possessing Conscientiousness.

The above was written for an early number of the Journal, but laid aside, until a practical evil grew out of the use of we and our, namely, a complaint that the editor arrogated to *himself* the discoveries published in relation to the connexion of Animal Magnetism with Phrenology. The "*we*" there used, was intended to refer to those scientific gentlemen who engaged in making these experiments, namely, Rev. Le Roy Sunderland, Dr. Sherwood, and myself. The editor never once thought of claiming them as *his*. Mr. Sunderland first made this application of Magnetism to Phrenology, and proposed to Dr. Sherwood and myself to join him.

A farther account of the results of these scientific experiments has been postponed for two reasons; first, because the space devoted to the Journal matter is too circumscribed; and, secondly, because these experiments are not yet sufficiently matured. They have been tried, with success, all over the country, and in regard to their truth, not the shadow of a doubt remains; and yet it is still uncertain how many new organs really exist. Thus far, nearly every supposed discovery harmonizes both with what I knew to be wanting in Phrenology, and with observations made since, or rather, with a comparison of the new organs with the characters of those in whom they have been found large and small. At all events, the Journal will soon give the results produced by exciting the several organs, both old and new, though preparing the cuts alluded to in former numbers, will take a longer time than was supposed.

The Magnet.—The first number of this periodical, dated for June, edited and published by Rev. Le Roy Sunderland, has been laid on the Editor's table, but too late for a suitable notice, as our space was previ-

ously appropriated. Of the importance of its subject matter—Animal Magnetism—and its connexion with Phrenology, Physiology, and terrestrial and solar magnetism, there can not be a doubt, and the same is true of the ability of its editor to conduct it. Price $2, per year, or 18 3–4 cents per number. Each nunber contains 24 royal octavo pages, and the present is illustrated with cuts, showing the electro-magnetic currents, phases, and phenomena. A more extended notice may be expected.

Uncle Sam on Phrenology, is the title of a neat little work on Phrenology, issued by the Harpers' and written by "Uncle Sam." Its design and execution, are excellent. The author deserves the thanks of the public for this contribution to the science—that is, for having presented the principles and facts of the science in so lucid and popular, and, withal, *humorous* and entertaining a manner. If the work does not have an extensive circulation, it will not meet its deserts. This, also, was received late, and will be noticed more fully hereafter.

Mrs. Gove's Physiological Lectures to Women.—Though the Editor has not seen this work as yet, it is highly spoken of as just the thing required to reform woman. Of all others, woman should know and obey the laws of Physiology, both herself and in educating children. A more extended notice of this work will appear hereafter.

Dr. Burdell, Chamber-st., near Broadway, has re-published the writings of the justly celebrated Lewis Carnaro; a full account of which will be given hereafter. The work is invaluable.

Comparison.—The best stock in which a man can invest, is the stock of a farm; the best shares are *plough*-shares; and the best banks, are the fertile banks of rural streams. The more they are broken, the better dividends they pay.

One cup of molasses will catch more flies than a barrel of vinegar. This trite comparison beautifully illustrates the influence on our fellowmen of a predominance of the moral faculties over the propensities. As a means of managing men, governing children, &c., kindness is infinitely more efficient than force.

W.

PHRENOLOGY AND PHYSIOLOGY

EXPLAINED AND APPLIED

TO EDUCATION,

AND

SELF-IMPROVEMENT:

INCLUDING THE

INTELLECTUAL AND MORAL EDUCATION AND GOVERNMENT OF CHILDREN;

MENTAL DISCIPLINE & THE CULTIVATION OF MEMORY;

And the Means of Regaining and Preserving the Health,

BY POINTING OUT THE

METHODS OF INCREASING AND DECREASING

THE

PHRENOLOGICAL ORGANS IN CHILDREN AND IN ONE'S SELF.

BY O. S. FOWLER, A. B.,

PRACTICAL PHRENOLOGIST;

Editor of "The American Phrenological Journal;" Author of "Phrenology Proved, Illustrated, and Applied;" "Fowler's Practical Phrenology;" "Fowler on Matrimony," founded on Phrenology; "Answer to Vindex;" "Synopsis of Phrenology;" "Phrenology versus Intemperance, &c., &c., &c.

"HE THAT IS WISE, IS WISE FOR HIMSELF."

NEW-YORK:

O. S. & L. N. Fowler, in Clinton Hall, 135 Nassau Street.

Philadelphia, Colon's Publication Office, 203½ Chestnut Street; Boston, Saxton & Pierce's Phrenological Depot, 133½ Washington St.; Rochester, N. Y., R. L Adams, Democrat Office; Utica, O. Hutchinson; Sackett's Harbor, Dr. Kimball Cincinnati, Ohio, Dr. Curtis; Erwinton, S. C., E. A. Smith.

1842.

Entered according to Act of Congress, in the year 1841,
BY O. S. FOWLER,
in the Clerk's Office of the Southern District of New York.

PREFACE.

THE design of this work is, to assist parents and teachers in the Physical, Intellectual, and Moral Education, Government, and Training of Children; to guide the footsteps of the young into the paths of virtue, happiness, and learning; and to point out to all the laws of their physical and mental being, as well as to aid them in obeying those laws—objects the most important and exalted that can possibly engage the attention of mortals.

IMPROVEMENT is the leading characteristic of the nineteenth century. Since the Revolution, men have probably made more numerous and more valuable mechanical and other inventions, greater improvements in agriculture, the arts, and sciences, in traveling, and other similar conveniences of life, than before since the dark ages. But whilst mankind are racking their inventions to discover some shorter, and still shorter, roads to wealth, to mechanical and other *wordly* ends, and to the gratification of their *bodily* wants, (nine tenths of which are purely artificial,) whilst they task all their energies to the *utmost*, merely to improve their *physical* condition; the majority of them care little, and do less, to improve their *minds*. If they can but live in splendid houses—or, rather, palaces—and command the means of gratifying their animal and selfish propensities, they even exult in having attained their highest good, though intellect lie waste, and moral pleasures be unknown. And few, even of those who *attempt* to improve the mind, know where to begin, or how to proceed.

Is this right? Does it comport with the great ends of our being? Is it our true interest even? Does it secure the greatest amount of enjoyment? Phrenology says NO, and man's sad experience echoes with emphasis this response. This science shows that it is his *higher* faculties, his intellectual and moral nature, which constitute the *fountain-head* of *all* his happiness; and that *physical* gratifications are only small tributaries. The object of this work is, to open up the *true* fountains of enjoyment, and to conduct enquirers, and especially the young, to their source, that they may drink deep, and drink perpetually, of those pure waters of pleasure, which our Creator designed to flow from the original constitution of our nature.

Applicants for phrenological examination daily and eagerly inquire, "How can I *remedy* my defects? By what means can I *increase* my small organs, or diminish those that are too large?" This work will answer these most important questions. It will show what constitutes a good head, and also how to attain this the greatest of desiderata. A knowledge of Phrenology, and thereby of ourselves, is the sum total, the essence, of *all* knowledge; but its application to SELF-IMPROVEMENT, to the discipline of the *mind*, and to the modification, moulding, and formation of the character, is the very quintessence even of Phrenology—the one remaining desideratum. To ascertain our qualities, is all-important; but to *improve* them, is infinitely more so. Though the former should precede the latter, it should by no means *supersede* it. Too long, already, have Phrenologists been content with *knowing* themselves by this science: it is, now, high time for them to *apply* it to their own mental cultivation, and to the intellectual and moral improvement of mankind, especially of the rising generation. If this single application of Phrenology, which we propose to make in these pages, were but fully carried out in practice, it would certainly do more to promote the happiness, virtue, talents, and well-being of man, than has been done by all the other improvements and inventions of this and past ages put together, including all the works on metaphysics, education, and kindred subjects, ever written; because this teaches the true method of improving the *mind*, whilst they appertain to physics, or enter the department of mind only to becloud it.

Though the primary design of this work is, to aid parents and teachers in educating and training children, yet every individual will be enabled to apply the principles contained in it to *self-improvement*; to the cultivation of every kind of memory; to mental discipline, so as greatly to increase the power of his intellect and its facility of action; to improve his morals; to govern and subdue his easily besetting sins; to regulate his feelings; and so to direct each and all of his faculties to their legitimate objects, that their action may be always pleasurable.

135 *Nassau Street, New York, Jan.* 1842.

PHRENOLOGY AND PHYSIOLOGY

APPLIED TO

EDUCATION AND SELF-IMPROVEMENT.

HAPPINESS is the one great end of man's creation, and his all-absorbing object of pursuit. Every organ and contrivance of his body, every adaptation of his nature, point to enjoyment as the pole-star of his existence. And the *amount* of happiness of which his nature is susceptible, is doubtless ten fold greater than has ever yet been experienced, and ten thousand fold greater than the average of mankind now experience.

Again: pain forms no direct object of any part of creation, nor of any arrangement or contrivance of man's mental or physical nature. Whence, then, its wide-spread prevalence? Why are poverty or wretchedness, disease or premature death, or one or other of those numberless forms of pain that flesh is heir to, allowed to scourge and afflict nearly or quite every member of the human family? Why do thousands suffer more than they enjoy? Why are tens of thousands the victims of physical misery, or mental agony, so intolerable as to extort the wish that they had never been born, or that death would hasten to their relief? Why do almost all complain of the "bad" and "wretched" world they live in?

Did Eve's eating the forbidden fruit, cause all this? But that event affected every member of the human family *alike*. Hence, so far as its influence is concerned, *every* one can be as happy in this world as *any* one ever has been, or will be. The true answer is this. All enjoyment and suffering are merely the EFFECTS of certain causes. The sentient world, no less than the physical, is governed *throughout* by fixed and invariable *laws* of cause and effect. But for the action of these laws, every thing would *happen;* now, all things are *caused*. Without them, men could rely upon nothing, could accomplish nothing: with them, they can attain given ends by the application of appropriate means. To secure happiness and prevent pain,

is their one great design, their legitimate action. And in order to secure this most desirable result, their benevolent Author has inseparably affixed happiness to their obedience, and pain to their violation. Had not pleasure been connected with their obedience, and punishment with their violation, this institution of law would have been powerless, and therefore useless. But this contrivance of rewards and punishments, so wise, and so well calculated every way to secure man's highest good, could have been prompted only by Infinite Benevolence, and arranged by Infinite Wisdom.

Still further: all our enjoyments and sufferings flow in the direct *line* of the obedience or transgression. Each law is its own rewarder or executioner. To obey any law, is to enjoy the blessings secured by that law. To transgress it, is to incur its penalties. No escape, no evasion of *either*, can possibly occur, throughout God's vast dominions. And since every pleasure is the fixed and certain effect of obedience to the laws of our being, and every pain the consequence of their infraction; and since the Creator has kindly endowed man with capacity to understand these laws, and also with the power of will or choice, by which he is enabled, to a considerable extent, to obey or violate them; the inference is obvious and inevitable that most of his sufferings are brought either by individuals upon themselves, or by man upon his fellow man. And since their observance or violation depends mainly upon every individual *for himself*, is it too much to say, that our enjoyments or sufferings are mostly in our own keeping, and under our own control, because they are the rewards and penalties mainly of our own doings? We grant, that the relations of children to their parents, and of man to man, modify this result, yet it will be found true in the aggregate.

This same Wisdom has also proportioned the pains of disobedience, and the pleasures of obedience, to the importance of the several laws.

As life is the greatest of all blessings, and as the violation of the civil law which protects that life, is visited with the heaviest of all penalties; and as the laws which protect character or property are less important, and their violation visited with less severity; so the laws of *mind*, being the very highest order of

aws, when obeyed, are productive of the purest, the most exalted, and most condensed of all enjoyment; whilst their violation plunges the disobedient into the deepest of all misery; because the mind constitutes the one main fountain of all man's pains and pleasures. He was never made merely to eat and sleep, to breathe, and labor, and die. He was created mainly to *think* and *feel*—to adore God and study his works. It is not his coat, nor yet his body, but it is *intellectual* and *moral* nature, which constitutes the identity and personality of man, and the *chief* ends of his existence. *This is man.* All else is not worth counting. If you could cut from him limb after limb, and one portion of his body after another, until the whole were removed, he would be the same man still, provided his *mind* were left the same. But let insanity derange that mind, or let death separate it from the body, and he is not the same person. We instinctively feel that his lifeless *body* is not *himself.* But it is our *minds*, our powers of *thought* and *feeling*, by which we mainly enjoy and suffer, and which constitute our very *essence* and identity, flesh and blood being our dwelling only. Hence it is, that the knowledge and obedience of the laws of mind, are the most important objects that can possibly engage our attention. To prevent suffering, and secure enjoyment, men *must* obey these laws. The main cause of man's sufferings; is to be found in his almost total *ignorance* of these laws, for how can he obey them without *understanding* them? This knowledge is as much more important than a knowledge of mechanics, mental philosophy, chymistry, navigation, astronomy, geography, or any other thing appertaining to matter, as mind is superior to matter. And yet man's utter ignorance in relation to this subject, is as deplorable as it is almost total. Every thing else is studied, but this neglected; yet *this* should be fully understood, even at the sacrifice of all other knowledge.

Let it be remembered by all, and especially by parents and teachers, that the one distinctive end and object of education should be, to expound these laws, and enforce their obedience. Let parents, teachers, clergymen, and public leaders, also remember, that they stand at the fountain head of those streams of happiness and pain which flood mankind; and that, by

explaining these laws, and inculcating to them obedience, aid in ripening and maturing all that is lovely and happy in our nature: but by omitting this, help to swell that tide of sin and misery which is bearing on its dark waters all the sighs, groans, diseases, and premature deaths, that mankind experience.

What then are some of the most fruitful causes of happiness and misery, that we may choose the former, and avoid the latter? In other words, what are some of the most important laws of our physical and mental being, that we may obey them, and reap their benefits? In answering these important inquiries, we shall be guided by the lights of Phrenology and Physiology.

PHYSICAL EDUCATION, OR THE LAWS OF HEALTH.

"A strong mind in a healthy body."

Those laws which govern the influences of the body and mind upon each other, are among the most important of our being, becanse of their intimate connection with man's virtue and happiness. Perhaps man *might* have been created a purely *spiritual* being; but the great ends of our creation are evidently better secured by our being composed of both mind and body, so closely united by the action of certain physiological and phrenological laws, that the several conditions of each have a most powerful and perfectly reciprocal influence upon the states of the other. Hence, a given condition of either, throws the orher into its corresponding state. Thus, a clear, cold morning, or a heavy, muggy atmosphere, oppressive heat, &c., by thro wing the body into different states, have directly opposite effects upon the *mind*. A high fever increases the feelings and mental manifestations; but hunger, fatigue, or bodily weakness, proportionally enfeebles them. Dyspepsy induces gloom, irritability, peevishness, and wretchedness of feeling, totally reversing the character, converting friendship into misanthropy, turning the blessings of hope into the bitterness of despair, and happiness into misery. *Physical* inaction induces *mental* sluggishness; whilst bodily exercise clears the

mental horizon of those clouds in which slothfulness or confinement envelopes it, producing a delightful flow of thought and feeling. Food and sleep, or their absence, affect the intellect and feelings powerfully and very differently; and a sufficient dose of arsenic or laudanum produces death. Sickness enfeebles the mind, whilst health strengthens it; and most of our constantly occurring changes of feeling and mental action, are caused by the different states of the body. Experience has taught many of our ablest speakers and writers to prepare their minds for vigorous effort, by practicing abstinence. Alcoholic drinks operate upon the body, and through it, affect the mind. Certain kinds of food excite some of the animal passions, whilst othe kinds increase our ability to think and study. The inspired Paul embodies this doctrine in the text, "I beseech you, therefore, brethren, by the mercies of God, that ye present your *bodies* a living sacrifice, holy, acceptable unto God;" clearly implying, that purity of body promotes holiness of mind; whilst an inflamed or impure body kindles the animal passions. Both the religious feelings and the talents are more affected by the various conditions of the body, and especially the stomach, by food, drink, physical habits, sickness, health, &c., than most people suppose. Hence, fasting promotes piety; fulness of bread kindles sinful desires; inflammation of the brain produces insanity; and its inaction, stupor, &c. When the pious christian, or the profound thinker, has eaten too much, or induced a severe cold or fever, or in any other way clogged or disordered his bodily functions, the former can no more expect to be "clothed with the spirit," or borne upward on the wings of devotion, nor the latter to bring his mental energies into full and efficient action, than they can expect to make the sun stand still, or the water to run upwards. "A strong mind in a healthy body," beautifully and forcibly expresses this truth, and also embodies the experience of past ages and all mankind. In short, as soon may he question the evidence of his senses, as controvert our position that mind and body each powerfully and reciprocally affect the other; for every member of the human family constantly *feels* this truth.

Again: these relations between body and mind are governed by certain invariable *laws* of cause and effect, certain conditions of the one inducing and *causing* the corresponding states of the other. The principle, that whenever a *part* of a given class of phenomena are governed by laws of cause and effect, *every* phenomenon of that class is governed by these same laws, is a universal principle of nature, and may be relied upon in *every* conceivable application. If a part of the phenomena of vision are governed by the laws of optics, *every* phenomenon of vision, experienced by man or brute since the creation, has been governed by the same laws. If a few bodily motions are caused by muscular contraction, *all* are caused by the same contraction. Should millions of daggers be driven through the hearts of as many human beings, they would in *every* instance produce death. Let any or every member of the human family take opium, or its compounds, and one and all will experience its legitimate effects. These illustrations will apply equally to *every* law of nature. That *some* of the relations existing between mind and body are governed by laws of cause and effect, is self-evident: therefore *all* are *equally* so: and *every* condition of *either*, throws the other into its corresponding state. If in any *one* instance, a given condition of either body or mind causes, or is caused by, that of the other, then *every* state of *either*, causes, or is caused by, the corresponding conditions of the other. Either there exist *no* relations of cause and effect between the two, or else it is *all* cause and effect—*all* antecedent and consequent; for nature always makes thorough work, or does nothing.

Hence, we can at any time throw either mind or body into any desired state, by putting the other into its corresponding one; and we can no more put either into any given state, without thereby throwing the *other* into its corresponding one, than we can arrest the operation of any other law of nature. And since the *brain* is the instrument of thought and feeling, *its* conditions influence the mind more powerfully than those of all the other portions of the body united. To excite either faculty or organ, is to excite the other; and as the stomach and brain are intimately related, *its* state also powerfully influences that of the mind.

MEANS OF PRESERVING AND REGAINING THE HEALTH.

"Health, the poor man's riches, the rich man's bliss."

In taking the busts of distinguished men for our cabinet, we were forcibly struck with the fact, that they all possessed superior physical constitutions. Without exception, they appear to have amply developed chests, and superior muscular and nervous organizations. The body and mind are so nearly allied to each other, that the characteristics of each will be found in the other. The entire man, mentally and physically, maintains a uniformity of construction throughout. Whoever possesses a vigorous and well balanced body, possesses strength of feeling and intellect. We occasionally see delicate constitutions coupled with superior talents; but such will be found to have *had* great physical energy, but to have impaired it. Every one accustomed to the exercise of mind, often experiences the deadening influence of disease or bodily prostration upon the exercise of intellect. He can perform not only a vastly greater *amount* of mental labor in a given time, but can do his work much *better*. He can do more in a single day of health, than in months of physical debility.

But the influence of health upon our *enjoyments*, is far greater than upon the power of intellect. Not only does sickness prevent our enjoying *animal* life, in eating, sleeping, exercise, &c., and rack the body with pain, but it converts our otherwise pleasurable feelings into instruments of torture. The proverb is trite, but true, that no one knows the value of health till he has been sick. Health produces a quiet and almost imperceptible flow of pleasure, both mental and animal, the sum total of which is inconceivably great, far exceeding the gratification afforded by riches, or honors, or any thing else whatever, except perhaps an approving conscience. If the wealth of both the Indies were placed in one scale, and health in the other, to prefer the former would be consummate folly. And he is *doubly* a fool who injures his health by excessive labor for a paltry pittance, by careless exposure, or by indulging his appetite. He is wise indeed who understands and obeys the laws of life and health; but he who does not understand them, is the veriest ignoramus, however learned he may be.

The value of learning consists in its *utility*, not its amount. In order even to *acquire* knowledge, he must obey the physical laws, else his learning will run from him like water from a sieve; but whoever keeps his body and brain in good order, will never forget any thing, never be dull in feeling or perception, but be clear-headed, and experience a delightful glow of feeling throughout his whole frame. Health is only another name for life. We affect to consider life as the greatest of *all* blessings, and murder or suicide as the very climax of crime; and yet they only shorten life. But to violate the laws of health also shortens life, and is therefore equally criminal. Clergymen preach upon all other sins but suicide, and teachers teach every thing but the importance of health, and the way to preserve and regain it. As every individual has but a single life to live, he should lengthen it out to the utmost, and secure the greatest possible amount of enjoyment from it. To know *how* to do this, is the essence of all learning; and to *do* it, is the perfection of wisdom. A shrewd writer has somewhere said, that the excesses of youth—meaning injuries of health—are draughts upon old age, payable with interest thirty years after date. Words cannot express the consummate folly of those who abuse their health because it is good. "Verily, verily, they *have* their reward." Their day of reckoning will surely over take them. To commit greater sins against themselves, their fellow men, and their God, is impossible. True, they do it ignorantly, but this does not in the least mitigate their punish ment. They ought *not* to be ignorant of it. We know their means of information are limited. Of all the books written, papers published, lectures delivered, &c., &c., few treat of the laws of life and health, whereas more should be written and taught upon this subject than upon any other, if not upon *all* others. The plain fact is, that there should be a distinct profession to teach physiology. The clerical profession care only for the *souls* of mankind, without any reference to their bodies. Lawyers have reference to neither, but mainly to their fees; whilst medicine is confined to *diseases* of the body, and not to their prevention. Proverb says truly, that "an ounce of prevention is worth more than a pound of cure." If there

were a profession whose province it was to teach the laws of life and health, the services of physicians would be little needed; and if physicians would talk and lecture upon the *preservation* of health, though they would decrease their practice, they would greatly augment human happiness, besides evincing a noble, philanthropic spirit.

The pulpit often teaches us to regard sickness and death as dispensations of Providence; whereas they are no more Providential than the rising of the sun, or the descent of water, or any other events that take place in obedience to fixed laws. Would death, caused by poison or shooting, be Providential? Certainly not; nor is it so when caused by breaking any of the other physical laws. Men kill themselves, and parents murder their children—with kindness often—and then throw all the blame off from the guilty perpetrators upon divine *Providence!* This is down-right blasphemy; and it is high time that sickness and death were regarded as *crimes*, perhaps of the individual, perhaps of parents, or ancestors, or his fellow men, but still induced by human agency, and hence criminal.

The inference is therefore obvious, that the *first* duty of parents to their children, is to give them, if possible, a sound, strong constitution. This should be done at the expense of every thing else. Those parents who neglect the physical education of their children in order to leave them property, are, cursing them most effectually. So also to try to cultivate their intellect at the expense of health, is to attempt to build without a foundation, and is liable to prove their mental and physical physical *ruin*.

What, then, are some of the *means* of preserving and regaining the health? Let the order of nature answer this question. Follow her guidance, and not only will the hearts of parents seldom if ever be rent with anguish over the death-bed of their children, but the highest good of children will be secured.

What, then, *is* the order of nature? Place your fingers upon the pulse of a child, and you will be astonished at the power and rapidity of their pulsations. The circulation of the blood in them is prodigious. The reason of this is obvious. The matter for the formation of the bones, muscles, nerves, &c., is

deposited by the blood. The rapidity of their growth requires a great amount of this deposite, which demands proportionably vigorous circulation and digestion. Most of their physical energy requires to be expended in the growth and consolidation of their bodies. To divert it, therefore, from its natural channel, to the nourishment of the brain, is most injurious. It is killing the goose which lays the golden egg. It is inducing that predominance of the nervous system which must inevitably hasten their death. The reason of this will be seen presently.

But this extraordinary amount of circulation proportionably stimulates the muscles. Hence their fondness for exercise, their restlessness, their incessant action. This action increases the circulation and promotes the growth. To keep children confined, therefore, is to retard the formation of a good constitution, and impair their organization. If the noise made by this exercise is troublesome, bear it, remembering that it is life and talents to your children.

Their respiration should also keep pace with their circulation and exercise. The blood ,without being vitalized by the action of the air through the lungs, will do them no good. Prevent their breathing, and how soon they die ! And just in proportion as this respiration is retarded, or the air they breathe vitiated, is their life shortened and enfeebled. You mothers, who are so tender of your children as to keep them shut up within doors, in a warm or unventilated room, compelled to breathe an atmosphere for the hundreth time, afraid to have them inhale the fresh air; remember that you are thereby taking the most effectual method possible to debilitate both body and mind, and to shorten their lives. Confinement kills many more children than exposure. As all children must be more or less exposed, those who are confined most, take the most cold, and suffer the greatest injury. Mothers usually have excessively large Philoprogenitiveness and Cautiousness, which often makes them so over tender of their children, so fearful of the least exposure, that they *kill* them with kindness. The other extreme should not be adopted; but uniformity is the golden medium, provided it allows abundance of *air*, *exercise*, and *nutrition*.

These remarks render it evident that the city is not the place

to bring up children; 1st, because the air is vitiated; 2d, they have little or no chance for exercise; and, 3d, are liable to form injurious habits, to mingle with low children, to rise and retire late, and tempted to eat improper food, candies, baker's bread, &c., and have their intellects prematurely developed at the expense of their bodies. No wonder that above half the children in cities die before their fifth year. The reason of this obvious. They have no air or exercise to live upon, and these are equally important with food, and should be as much provided by parents.

PRECOCITY; ITS CAUSES AND EVILS.

"Whom the gods love, die young."

The excessive Philoprogenitiveness and Approbativeness of parents, especially of mothers, make them try every possible means to bring their children forward early. Since the energies of the child cannot be expended twice, their consumption by the exercise of mind, prevents their growth, and prematurely debilitates them. The green-house method of bringing every thing forward, never succeeds. It inevitably hastens their death, besides weakening their brains whilst they live. Throughout nature, the proverb, "late ripe, late rotten," holds good. Early fruits soon decay. The poplar tree grows rapidly, but soon rots; whilst the oak and hickory form slowly, and are far more durable and serviceable. All animals that arrive at maturity early, die proportionally early. So certain and uniform is this law, that, extraordinaries excepted, the life of any species of animal, or of any individual animal, can be calculated from the periods of their maturity with almost mathematical accuracy. This law of proportion between the developments of animals and their maturity and old age, governs the whole animal kingdom, and pervades all things that grow, individuals as well as species. Accordingly, we find long-lived persons to have been very dull children, and our smartest men to have been backward boys. Adam Clarke was the veriest blockhead in school, an eyesore to his master, and the butt of ridicule among his mates. Webster is said to have been a very unpromising youth in point, of talents. What was Patrick Henry when a boy? The dullest of the dull. Few of the distinguished men of any age, were noted, when boys, for any thing but stupidity;

and it is a notorious fact that, as a general thing, great men enter on their intellectual career late in life.

The order of nature is, that nearly *all* the energies of children and youth should be expended upon their bodies, in forming and maturing their organization, and in laying a deep and broad foundation for the superstructure of after-greatness; and every item of energy demanded by the body, but expended upon the mind, only weakens *both*. The great fault of modern education is, trying to make learned babies and nursery prodigies; in doing which, they often make them simpletons through life, or a youthful corpse. Just as the old miser had learned his horse to live without eating, it died. So, just as children become *very* smart, they also die. What will not parental vanity do? Every thing but the right thing. Where are those meteors of poetic genius, the Misses Davidson? In their graves at 15! Philoprogenitiveness *must* be governed by intellect. Not one married person in a hundred is fit to become a parent, because so ignorant of the true principles of education. Hence, most children who do not come up of themselves, are brought up *wrong*, and humanity thereby degraded.

This same principle applies to early piety; and is true of putting children to trades, or into stores, too young. My heart has often been pained to see boys behind the counter; and the smarter they are, the more it grieves me. Slim, sharp-featured, muscles flabby, I see the bright sun of their morning about to pass into an early cloud, or the darkness of premature death. The working classes commit the same fault, by putting their children to labor, or to a trade, too young. They bind them out as slaves to a task-master, to labor early and late, and often without sufficient food and sleep, to expend their energies demanded for growth, in enriching his coffers. Many mechanics make it a point of economy—although it is the worst kind of *robbery*—to get all their work done by *apprentices*. The present apprentice system is *monstrous*. Its object *should* be to teach the trade; whereas it *is* to make money out of the labor of the apprentice, who gets only a scanty living, whilst his master gets large profits. Every man, and especially the young, have an undoubted right to all the avails of all their earnings; and for others to consume them, is on a footing with highway robbery.

Parents also think, that as soon as their children get to be twelve years old, they must bone down to hard work. Their actions say: "Children I have toiled hard for you, and now you must pay me principal and interest, by working still harder for me." Let such remember, that children much more than pay their own way, in the pleasure they afford to parents, thereby bringing the latter in debt to the former; or rather, both are indebted to the God of nature. Children should have their own earnings; and above all things, they should not be compelled to expend their energies for their parents at the very time when they are most demanded to perfect their bodies. Most children and youth are lazy, particularly those late in maturing, because their vitality is expended in giving them a strong constitution, and it is neither right nor best to make them labor much, beyond what they themselves prefer. "All work makes Jack a dull boy." Still we would have them take abundant exercise and labor some. After they have attained their full growth and maturity, after their reservoir of animal power has begun to to fill up, they may begin to work off their surplus energies through their muscles by labor, or their brain by study, but not before. We deem this point a most *important* one.

The principle here explained exposes a prevailing error of sending children to school, college, &c., young. Till they are ten or twelve years old, they should not be confined at all, and after that, not more than from half an hour to an hour, without alternating with exercise. And then the air of the school room is often vitiated. But more of this when we come to speak of intellectual education.

In passing, we will express an opinion that children are too warmly clad. A part of the office of respiration is performed by the skin, but if children are all bundled up, the corrupt matter, thrown off through the skin, having no door of escape settles upon the body, corrupting the blood, and producing permanent injury. After the third year, there is little danger of their being too cold. They have a great amount of animal heat, so that they are liable to be too warm. Why do children love to go nearly or quite naked? Why dislike to be dressed? Because the "air bath," as Franklin termed it, is so very agreeable. And it is equally beneficial. It is as we *use* children in this

respect. A white man once asked a thinly clad Indian if he was not cold? He replied by asking the white man if his *face* was cold? He replied no, because he was used to keeping it uncovered. "Me *all* face," retorted the son of the forest. My full opinion is, that perfect health requires every individual to spend at least ten hours daily in the the open air, and that children should spend even more; and, secondly, that the clothing should be thin and the neck open, so as to allow a free ventilation of the body, besides sleeping in rooms well aired.

Not less important is the *feeding* of children. The three principal functions of animal life, are respiration, exercise, and nutrition. The truth is undeniable that different kinds of food very differently affect the mind. The quantity is still more important than the quality, as also the time of taking it. If these things are important in horticulture, &c., how much more so in children. On this subject, much remains to be learned; but to be all the time giving children "a piece," to allow them to eat cakes, candies, sweetmeats, &c., is highly injurious, especially if purchased at the bakery. Besides disturbing digestion, and fevering the system, it creates a craving, perverted appetite, which gradually destroys the tone of the stomach, and eventually induces dyspepsy with all its evils. Young children may require feeding three times a day, but for youth and adults, twice is sufficient. This matter is influenced mainly by habit. To the English, five meals daily are indispensable, yet the farmer in the winter, when he needs the most food, often does with two, and we have of late conversed with many who eat but twice per day the year round, and they *all* testify to their mental and physical improvement. Our own experience accords fully with this doctrine. When pressed with business, we eat but twice in twenty-four hours, and find ourself able to nearly double our mental labor. This may not hold true of laborers, yet we do not doubt but it does. We also believe that children are fed too much and too often; and that this weakens their intellect, but inflames their animal faculties This point will be rendered more clear when we come to speak of the relations between the body and the base of the brain, or the animal propensities.

THE TEMPERAMENTS, AND THEIR BALANCE.

Man's physical nature is composed of three principal classes of organs, each of which is called a Temperament. They are, 1st, the VITAL temperament, or NUTRITION apparatus, embracing the entire system of inside organs, which manufacture vitality, sustain animal life, and re-supply the brain, nervous system, and muscles with that vital energy which their every action compels them to expend, including the heart, lungs, digestive apparatus, blood, viscera, and all the internal organs, analagous to those removed from the inside of animals in fitting them for the table. 2d. The MOTIVE apparatus, or bilious temperament, embracing the bones, muscles, sinews, tendons, &c., which constitute the frame-work of the system, give it its size and shape, and produce bodily motion, physical strength, &c. 3d. The MENTAL organization, or nervous temperament, which embraces the brain and nervous system, the exercise of which produces thought, feeling, sensation, memory, talents, &c.*

The best condition of body, the one most favorable to true greatness and a general genius, to balance and consistency of character, and to perfection in every thing, is that in which each temperament is strongly marked, and all about equally balanced. When there is too much of the motive, there is power, yet but little action, so that the talents are dormant. If the vital-motive greatly predominate over the mental, though there may be *physical* power and enjoyment, there will too little mental, too much grossness, coarseness, and obtuseness of feeling, with too little of the intellectual and too much of the animal. But where the mental greatly preponderates, there will be too much mind for the body, too great sensitiveness, too much intensity of feeling, and that too exquisite; too much sentimentalism and refinement, with a tendency to precocity, which induces an early death.

These temperaments and their predominance may be aptly compared to the several parts of a steamboat. The vital is the wood, water, fire, steam, and engine, which produce the propelling power; the motive is the hulk; the mental, the freight

* For a full description of these temperaments, and their accompanying mental manifestations, see "Fowler's Practical Phrenology," pp. 10 to 28. We intend soon to elucidate this doctrine fully in the Journal.

and passengers. When the vital predominates, it manufactures more steam, more vital energy, more impulse, more animality, than the brain, nerves, and muscles can work off, which produces an overflowing of feeling and passion, a restlessness, a high pressure, and a liability to explode. The lion has a prodigious chest, and an amount of animal power almost beyond conception, with but a small brain. Hence, man, with scarcely a hundredth part of his strength, but with well developed brain and nerves, can accomplish a thousand fold more. If the osseous and muscular system greatly predominate, there is too much hulk; the person will move slowly and feel but little, enjoy and suffer only proportionally little, and if the mental is also weak, be obtuse in intellect, a stranger to refinement and intellectual enjoyment, and, having but few passengers, the boat of life will be too light freighted to be worth running, or to secure the great ends of existence, namely, *intellectual* and *moral* enjoyment. But where the mental greatly predominates, the vessel is overladen, the energies of the system are drawn from the digestive apparatus and muscles, and concentrated in the brain, which thus consumes the vital powers faster than the vital organs can manufacture the re-supply. This overdraught, whilst it greatly augments the talents, also causes premature death. This principle is illustrated by the ill health, dyspepsy, nervousness, head-ache, ennui, &c., of our literary and sedentary classes, and by the intellectual obtuseness of those who neglect mental culture. Consumptive families are usually slim-built and narrow-chested, which indicate weak vital organs and very active brains. This disproportion of parts hastens their death. Apoplexy, gout, &c., are caused by the opposite extreme. If physicians would but restore the loss balance between the temperaments, they would save many patients whom they now lose. If mankind in general would only keep these temperaments equally balanced: if, when they are becoming nervous, they would labor more and think and feel less; when worn down with labor, they would rest and read; when they have taken more food than exercise, they would restore the balance between the two; if, like Buonaparte, they would take the extreme *opposite* that which caused their disorder--which is only applying this principle—most of those

who die young, would live to be old, and pain and sickness would be comparatively unknown. Nearly every form of disease is caused mainly by the deficient or excessive action of one or more of these temperaments. This disproportion, if carried far, hastens death; but when each temperament is well developed, and all equally balanced, there will be an abundant supply of the vital energy to keep the animal economy in motion: a proportionate supply of physical strength, love of exercise, and ability to labor, together with lively sensibilities, intensity of feeling, and power of thought, the result of which will be, good health, long life, physical and mental enjoyment in the highest degree of which our nature is susceptible, and a high order of natural talent. But on the principle that an overloaded stomach withdraws the strength from the brain and muscles, the predominance or deficiency of any part tends to increase the excess or defect, which augments the evil, being the reverse of what should take place. This exhausts the weaker temperaments, which go by the board, carrying health, happiness, and life, with them.

MEANS OF PRESERVING AND REGAINING THIS BALANCE.

We have already seen, first, the value of health; and, secondly, its leading condition, namely, a well-balanced *temperament*. Our next inquiry relates to the preservation of this balance, and to regaining it when lost—an enquiry of *vital* importance. The principle by which this most important object is to be secured, is, like every other law oi nature, simple, but effectual. The temperaments can be changed by exercising the deficient ones, and diminishing the action of those that predominate. We have seen so many instances of this change, that we consider it no longer problematical, but a matter of *fact*. The *extent* to which the change can be effected, is astonishing. The well known law of increase by exercise, and decrease by inaction, applies here in all its force. Illustrations of it are innumerable. You will hear oyster-men, chimney-sweeps, charcoal-men, and street-pedlars, who cry their articles, halloo for squares, amidst the rattling of carriages, the crashing of carts, and all the roar and din of a city, whilst you can hardly hear yourselves talk to a friend, even in doors. Their power of voice is *prodigious*, and all acquired by its *exercise*. This

same law governs every individual, and will enable those of weak lungs and consumptive habits, to strengthen their lungs, and thus avert a disease to which they may be predisposed. On *this* point we speak from *experience*. Our mother died of consumption, and at the age of fifteen, we were confined within doors for three months by weakness of lungs. Soon after we commenced our academical career, we were again brought near the grave by the same complaint, and in our Junior year in college, were again attacked with it, and compelled to fall back a year. But no sooner had we graduated, and commenced speaking in public, and examining daily in private, than our lungs began to improve, and have continued to do so to this day. And notwithstanding our constitutional feebleness of lungs, we doubt whether many men have done more public or private speaking within the last ten years, than we have, lecturing to crowded houses, two hours or more almost every evening, and examining professionally all day, year in and year out. And those who have listened to us, know that when we speak and talk, we do not *whisper*. But for this, we should *unquestionably* have been dead *long* ago.

Let parents who have the least tendency to consumption, put this principle in practice upon their children, and instead of commanding silence, encourage their children to talk much, and halloo loud, and that in the open air; and let every one who is narrow-chested and slim-built, or at all predisposed to consumption, but employ this principle; let him talk much and read more, and, if possible, speak in public; let him retire to the fields or woods and halloo, and do it daily; and he will ward off consumption, strengthen his lungs, improve his voice, and benefit his whole system by the increased amount of air breathed.

But in doing this, great care should be taken not to go *too* far, especially at *first;* for over-taxing any part, so as to exhaust it, weakens. Either extreme is detrimental. There is little danger that children will exercise their lungs too much, but great liability of that exercise being prevented, and adults can know when they are over-taxing *their* lungs by their sense of weakness or irritability. They should then stop short *at once*, till their lungs are rested, and then proceed *cautiously*, exercising them as much as they will bear, but no more.

This principle applies equally to improving the tone and power of the *muscles*. A Roman wrestler is said to have carried a calf daily through the stadium, (nearly a mile) until it became a full grown ox. At first sight, this appears impossible, but viewed in the light of this principle, it appears probable. The Hottentots run down their fleetest game, even to the antelope. The feats of physical strength and agility performed by circus performers, slack-rope dancers, wrestlers, boxers, by the "Ravel Family," "Bedouin Arabs," &c., &c., are astonishing, yet practice would enable almost any one to do the same. To develope the muscular system by exercise or labor enough to preserve or regain this balance, is easy, and, withal, a most imperious *duty*. Without muscular exercise, this balance cannot be preserved, and without this balance, all the great ends of life are cut off. One of the worst fashions of the day is this *anti-working* custom. Ladies, especially, think it very ungenteel to labor, because it hardens their hands, and a *lady* must surely have soft hands. Let such remember that soft hands always accompany soft *brains*, and soft and weak intellects. Hence, it is very impolite to talk ideas or sense to a lady of quality; but your language must be just like her hands—*soft*. Delicacy in woman is a good thing, but "*too much* of a good thing is worse than *nothing*." *Extra* refinement is like a peach, so *very* ripe as to be *rotten*. Effeminate sentimentalism is worse than coarseness. One main cause of the nervousness, vapors, depressed spirits, dyspepsy, sickness, and physical debility of fashionables, is want of labor. Without it, no person *can* become great or good, any more than without food or breath, and for the same reason. Produce a man or woman who has become great w thout having laid a deep and broad foundation in hard labor, or vigorous physical exercise, and you produce a monstrosity—a being not governed by the laws of life or health.

It would be easy to fortify our position that much physical exercise is indispensable to intellectual greatness, by the histories of distinguished men. Sir Walter Scott, after confining himself to his desk for several days, till the energies of his brain had become exhausted, would mount his horse, call out his dogs, and follow the chase for days in succession, till he had restored

this balance, and then return to his study.* When Byron entered College, fearful that his tendency to corpulency would injure his personal beauty—of which he was very proud—took extremely severe exercise daily in order to reduce it,† besides leading an extremely active life. In the life of Adam Clarke, allusion is made to his extraordinary strength in rolling stones, &c. Webster was a backwoodsman, born in a "log-cabin," on the borders of the unbroken forest, and inured to hard labor.‡ And often, breaking away from public life, and shouldering his gun, he ranges the forests for days in search of game, besides taking much exercise daily. Franklin, the beacon-star of his profession, was a practical printer and a hard worker. Young Patrick Henry's favorite pursuits were hunting and fishing, which he followed for weeks together. They laid the foundation of his greatness. Need we mention the Father of our Country, its pride and pattern? Washington, when not employed by his country, labored assiduously upon his farm; and was actually driving his plough when he received the news of his election as President. Harrison, "the *farmer* of North Bend," led a life of great physical exertion and exposure. Burns, the Scottish bard, actually composed much of his poetry when at work on his farm. President Dwight, the great theologian and scholar, attributed much of his mental vigor to daily labor in his garden. John Quincy Adams, one of the most learned men of the age, informed us that he found much daily exercise indispensable.

But why enumerate cases to prove or illustrate this plain law of our nature? Rather let every one avail himself of its advantages and labor both for the pleasure afforded by muscular exercise and for its beneficial influences upon intellect and feelings.

On the other hand, *excessive* labor is also injurious, especially for children and youth. Play is best for them, even till they are ten to fifteen years old, because it exercises *all* their muscles, and also their minds. If they must work, let it be rendered amusing, so as to interest them, and let it be often changed, so as to exercise *all* their muscles.

*See "Madden's Infirmities of Genius."

†Anecdotes of Lord Byron, published by Carey & Hart, 1836.

‡See his speech delivered at Saratoga, 1840.

A thousand times, when parents have brought their children to us, complaining of their dullness as scholars, their hatred of books, and excessive love of play, and deeply solicitous to ascertain whether they did, or ever would, know or be any thing, have we pointed out superior phrenological developments, and shown, in the light of this principle, that the very things of which they complained, were stars of promise to their children. True, all play-loving boys have not the phrenological organs of greatness; but those who have, are the better for loving exercise. The more the better, and to whip or drive such boys to school, is to violate their natures; to diminish their physical powers; and ultimately to weaken their intellects.

In passing, we will add, that certain trades and kinds of labor, such as shoe-making, stone-sawing, sadlery, tailoring, several of the arts, &c., call but *few* of the muscles into action, and are therefore highly injurious; yet by walking four or five miles daily, or by laboring often at other things, or taking any kind of exercise requiring the action of the dormant parts; those who labor at them will be able to avoid all evil consequences, and prolong their lives.

MEANS OF INCREASING AND DIMINISHING MENTAL ACTION.

But a still more important inquiry is that relating to the *increase* and *reduction* of the *Mental* Temperament. From it, their fountain head, flow most of our pains and pleasures. Its healthy action produces the latter, whilst the former are mainly caused by its morbid or perverted action. A knowledge of its proper regulation and exercise, is of the highest possible importance to every member of the human family. Those in whom it is too weak, proportionally fail to experience mental and moral pleasures, and are thus cut off from the chief ends of our being. On the other hand, its predominance is always extremely painful.

By what means, then, can it be improved? How can its power be increased or diminished as occasion may require? To strengthen it, we have only to *exercise* it. To diminish it, we must turn the current of its action into other channels. The brain is quite as susceptible of improvement as are the muscles, lungs, or any other portion of the system; because governed by the same physiological law of increase by action,

and decrease by inaction. Let it never be forgotten that mental discipline consists, not in a knowledge of Greek, Latin, Mathematics, &c.; not in the amount of study performed; nor the time devoted to intellectual pursuits; nor in the number or kinds of books read; but in an *active and healthy condition of the* BRAIN.*

If your mind is dull, your intellect obtuse, your feelings sluggish, your memory short, &c., you have only to put your brain and nervous system into proper order, and you will thereby quicken your feelings; render intellect clear and penetrating; improve memory; and strengthen the mind. Your brain can be put into this state, 1st, by exercising it habitually, yet take care not to exhaust it by *over* action; 2d, by paying strict attention to the condition of the stomach, with which it closely sympathizes. Hence an improper quality or quantity of food will stupify the mind, deaden the feelings, produce headache, and affect the functions of the brain and nervous system sooner than any others. Certain kinds of food, especially breadstuffs, farinaceous food, fruit, &c., are naturally calculated to strengthen the brain and nervous system; whilst other kinds, especially animal food, fish, oysters, &c., impart strength, to the muscles more, relatively, than to the brain.

* Would that the founders and professors of our colleges but understood and taught this plain principle, in marking out the path for students to follow, and that students would practice it in going through their academic course, which, as it now is, often injures instead of benefits—and *weakens* the mind oftener than strengthens it. Almost every college arrangement is detrimental to health. Hence ninety-nine in a hundred leave our institutions of learning, with broken constitutions. *Almost all* professional men are invalids, except those who regain their health *after* leaving them. This weakening of the body, of necessity enfeebles the brain, and of course diminishes the talents, instead of augmenting them. We appeal whether many young men who enter college with sound health and strong common sense, do not leave it learned simpletons, or at least, with *less* intellectual power than they entered it. A college course almost invariably impairs the health, which weakens the brain, and enfeebles intellect. The same is in part true of attending school.

But the most efficient method of improving the tone and power of the nervous system, is its *exercise.* But that exercise must be *daily* and *habitual.* To do this, you must apply your mind by thinking, reading, musing, studying, conversation, writing, &c. This exercise will cause the blood to flow freely through the brain, which will enlarge the bloodvessels, facilitate the circulation of this vital fluid, and secure mental discipline. This mental discipline cannot be *purchased.* It can neither be given nor received. It must be obtained by every individual's exercising his *own* brain *for himself.* Parents cannot exercise the brains of their children by *proxy.* By setting motives before them, they may aid them, yet they cannot think or feel for them. If, therefore, parents find their children dull, and wish to cultivate their intellects, they must contrive ways and means by which to excite their brains to action. It should be remembered that when children take no interest in books, they do them no good. To learn to read, spell, repeat by heart, &c., *mechanically,* requires little cerebral action, and therefore does them little good; whereas a matter even of play, in which they take a lively *interest,* excites their brain, and this causes it to grow, besides promoting mental discipline.

It might be added that studies in which little interest is taken, cause but little action of the brain, and therefore do little good. But more upon this subject when we come to speak of the intellectual faculties, including schools, colleges, &c.

But many persons, especially among the literary and sedentary classes, find their brain *too* active, and wish to know how to *reduce* that action. They feel nervous and irritable. Even trifling things excite them inordinately. A molehill is magnified until it becomes a mountain. They are in a fever of excitement; tossed back and forth by currents and counter currents of feeling which they find it impossible to control. At one time, they are elated beyond measure, and full of ecstacy. Some trifling thing, too insignificant to effect a healthy brain, casts them into the very depths of despair. Their sensibilities are morbidly alive to every thing. They retire to their couch, but not to sleep. The boiling blood courses through their veins, whilst the laboring pulsations of their hearts shake their whole frame. Their thoughts wander to the ends of the earth, but to no purpose. They think and feel upon every thing,

only to increase their disease, and aggravate their menta sufferings. If Cautiousness be large, they are afraid of their own shadows, and see their path filled with lions and tigers. If Approbativeness predominates, they thirst for fame, but see the cup of praise dashed from their lips by merely imag nary neglects, or reproofs which are so construed as to induce the deepest chagrin and mortification. They seek sleep, but find it not. Hour after hour they turn upon their damask couches, exhausted by mental action, even to prostration, but unable to compose their excited, erratic feelings. Their brightest thoughts flit like meteors across their mental horizon, only to vanish in midnight darkness. And if tardy sleep at last folds them in his arms, frightful dreams disturb their shallow slumbers, and they awake enshrouded in deep, impenetrable melancholy. They feel most keenly, only to feel most wretchedly. Now and then a sigh, or groan, or "O dear me!" escapes them, and they internally feel, "O wretched man that I am." They feel burthened with they know not what, but this only oppresses them the more. Things, otherwise their joy, are now their misery, and every thing sweet is rendered bitter. Their nervous energies are wrought up to the highest pitch of inflamed action; yet they have no strength to endure this excitement Days and weeks roll on only to augment their miseries, and to increase their exhaustion. Their excited mind thirsts for books, but this only increases the ascendancy of the nervous system over the vital and motive, which is the cause of all their sufferings. What can they do?

Listen whilst we tell you. Your sufferings are caused by the predominance of your nervous system over your muscular and nutritive apparatus; and your *only* remedy is to be found in *restoring this balance.* All the medicines in creation cannot cure you, because they cannot reach the cause of your malady. Doctoring you do not need. You need only to restore the balance of action between the brain and the other two great functions of your nature, namely, nutrition and muscular exercise, and you are well at once. This must be done by *diverting the circulation from the brain* to the muscles, and by removing all causes of excitement. Tea and coffee must be abandoned, because they highly stimulate the brain and

nervous system, the excessive action of which, is the sole cause of your disease. A strong cup of tea will excite in one this state, more than a glass of spirits will a hardy laborer, whose nervous sensibility is feeble, and do him ten times the injury. Wines, porter, ale, cider, beer of all kinds, must be wholly abjured, and for the same reason. They all stimulate, whilst you require something cooling, relaxing, and sedative. Tonics may brace you for the time being, but their virtue consists in their stimulating property, and herefore should be avoided. Flesh is injurious; because it also is highly stimulating, and calculated to inflame the nervous system. Too much food is also bad, and is often one primary cause of excessive nervous action, producing a feverish state of the system, because the blood is surcharged with nutrition. Colds are another; and still another, more efficient than either, is an impure skin. When the pores of the skin are closed, they cause the blood to retire to the heart, and flood the brain; besides preventing the impurities of the blood and the waste matter of the system, from escaping. This must be remedied by frequent ablutions of the whole body. To children, bathing is all-important. They have so much waste matter that the avenues of its escape must be kept always open. Besides this, the cold bath is highly exciting to the skin, and this promotes the circulation of the blood, and thereby withdraws its circulation from the brain. Where the energies of the system are suffieient to produce reaction, it is one of the very best remedies of nervous affections to be found. Cold water is certainly cooling, and carries off that heat, that feverish, morbid action which is the cause of the disease.

These principles apply with great force to precocious children. Their extreme smartness is caused by the predominance of their nervous system over their muscular and vital, and their life depends upon restoring this balance, which can be done only by the means just pointed out for diminishing excessive nervous action, and by giving them much exercise and sleep. Their brains and nerves should be excited as little as possible; they should not be allowed books; should not be confined in doors; should wash and bathe often; retire early; and live much on bread and milk. We believe there is something in milk quieting to the nerves, and promotive of sleep, two of the

main ends to be secured. We would also recommend this diet to adults who wish to reduce their nervous action.

But the most effectual method of restoring this balance of parts is *muscular exercise.* It compels the blood to return to the muscles, induces sleep, promotes perspiration and respiration, and this purifies the blood, and thereby quiets the brain and nervous system. Riding, especially on horseback, produces the same desirable result. Yet neither should be carried to prostration, for this *prevents* sleep, and *inflames* the nerves, which aggravates the disease. This exercise should be habitual; should be carried to fatigue, but not to prostration, and then alternate with rest. Literary pursuits should be abandoned. So should all kinds of business which cause much excitement.

But the organization of society is most unfavorable to the proportionate exercise of these three great functions of our nature; that is, to the preservation of this balance of the Temperaments. Laborers exercise their *muscles* mainly, to the neglect of *mental* culture, cutting themselves off from those pleasures flowing from the exercise of mind; whilst business and professional men, artists, writers, book-keepers, bankers, brokers, and the lighter kinds of mechanics, and indeed most of the inhabitants of our cities and villages, especially our gentlemen of leisure, dandies, and fashionable ladies, exercise their brains and nerves mainly, to the almost entire neglect of their muscles, meanwhile overloading their digestive apparatus, breathing impure air, and keeping late hours. Laborers and business men say they have no *time* to cultivate their intellects, whilst our gentlemen-loafers, fashionable aristocrats, and many others, have little disposition to take sufficient muscular exercise. Hence the inhabitants of our cities and villages, and especially the "*higher* (?) classes," have the mental temperament predominant, and the vital, weak; as is evinced by their sharp features, thin faces, and haggard looks. On the other hand, countrymen and workers, have larger and better heads, yet lack mental cultivation and discipline: that is, they have much *natural* talent, with but little *acquired* learning. This explains that sickly delicacy, that poor, scrawny, homely, sharp-favored, dyspeptic, and nervous state of the body which usually accompanies riches, fashion and idleness. Society needs re

modeling in this respect. Every laborer should read, think, or study from four to eight hours daily, whilst every student and literary man, all those who live by their *intellects*, should labor or exercise five or six hours every day. And every fashionable lady, whether she would consult pleasure or beauty, should also labor or exercise much; whilst purse-proud aristocrats and all those who are above labor, should redouble their excesses and indulgences so as to rid the world of such nuisances as soon as possible.

Most professional men are invalids, and die early, and all because they violate this law of balance of temperament A student's life is generally considered *necessarily* unhealthy. But this is by no means the fact. On the contrary, a comparison of the ages of different classes of men, proves that literary pursuits are actually *conducive* to health and longevity.* Were the sole object of my life to see how long I could live, or even how happily, I would divide each twenty-four hours into three parts, and devote eight hours to sleep, rest, and meals; eight more to vigorous exercise, or rather hard labor; and the balance to the exercise of mind, uniting the last two whenever practicable. Or even were my object to become intellectually great or learned; or were health my object; or were all these combined; I would pursue the same course. Mr. Burritt, the learned blacksmith, is often referred to as an intellectual prodigy. He certainly is the wonder of the learned world. Besides understanding fifty languages, he has accumulated a richer treasure of historical and miscellaneous information, than probably any man living, [see Phrenological Journal, vol. III. p. 27, or the Phrenological Almanac for 1841,] and yet, in his letter to ex-Governor Everett, he states that his poverty *compelled* him to *labor* at the anvil *eight hours* daily. This is the *one main* secret of his greatness. "Go thou and do likewise," and train up your children, too, in harmony with this principle.

In passing we will add, that the order of nature is evidently this. In childhood and youth, the *vital* powers predominate in action. The muscular follow next; and from fifteen to thirty, the vital and motive functions are more vigorous than the mental. From thirty to fifty, the three should keep an even pace, but after that, the mental naturally predominates. Tal-

* Madden's "Infirmties of Genius."

ented men retain all their intellectual vigor long after their muscular system has been enfeebled by age. The most splendid specimens of intellectual greatness—Milton's "Paradise Lost" included—have been reared by old men in their physical decline. The brains of children are soft, and their nerves less sensitive to burns, bruises, cold, &c., than those of adults. The nervous system is the last to mature, the last to yield to the approaches of age, and of a *natural* death. Hence little pains should be taken to cultivate the intellect until nature has fully matured the brain and nervous system. Some species of animals, the dog included, are born blind. What consummate folly to cut open their eyes, or put on glasses, or attempt to make them see by any other artificial means, before their natural time! Let nature have her perfect work. Follow where she leads; but never *precede* her. Let your *first* labor be to give them a *strong constitution;* and to lay in as large a supply of *physical* energy as possible. You may cultivate their intellects, but not so much as to withdraw their energies from growth. Let intellectual attainments be what nature has made them, *secondary*, in point of time. Would it be wise in you to hurry your fruit-trees into bloom so early that the frosts of spring would certainly nip the fruit in its bud? Let intellect appear *too late*, rather than too early. It is in obedience to this law, that children sleep most of their time the first few weeks after birth, and much during childhood and youth. Let them sleep all they will. Let them retire before dark, and even take a nap in the day-time. Let them not be tasked with *any* thing till they are fifteen. Till then, they rarely feel the importance of learning, and most of them will learn more in one year after they are twenty, than in their whole lives before they are fifteen. Most people think themselves too old to go to school after they are twenty; whereas this age is better than under twenty, and they will learn still faster and better after they are thirty, especially if they preserve their health unimpaired. Most persons think that they cannot afford time to study after they are twenty. As well may they say they cannot afford time to live or eat. *Mental* exercise and improvement is *the* business of life. Most parents think the time of their children too precious to waste in study after they are old enough to be useful in other respects. Hence, they crowd them

into school too young, thus spoiling them both ways. This is the crying evil of our modern system of education, and therefore we dwell upon it. Let parents and teachers ponder well our last principle, viz. that the physical powers, or the *vital* temperament, is developed *first*, and the brain and nerves *last*, and the consequent inference that much more of the first ten to fifteen years should be spent in exercise, sleep, and nutrition, than in study; that *too* early education and schooling are most detrimental; and that the child should receive most of his education, before that period, *whilst in motion*. We would not have mental education wholly neglected, yet we would make it secondary as to time and importance. But we shall be more explicit on these points hereafter.

Having shown the necessity of health, and of a good physical organization, and also in what they consist, together with the means of obtaining them, we proceed to the second great law of virtue, or condition of happiness, namely,

BALANCE OF FACULTIES.

There are three primary laws of virtue and happiness, which govern the mental faculties, viz.:

1st. That they should be *proportionately* developed and exercised; the moral sentiments, however, governing:

2d. That each should be exercised in harmony with all the others; so that no clashing or opposition can occur: and,

3d. That every faculty should be exercised upon its *legitimate* object; that is, in harmony with its *primary* function.

As obedience of the first of these laws is of the *utmost* importance, and since its presentation is to constitute the main body of this work, its full elucidation here is indispensable. This doctrine of balance of power—of the proportionate action of parts—we regard as one of the most important laws of nature, whether organic or inorganic. It involves the inquiry, *What constitutes a* PERFECT *head and character?* Let our answer and its reason be duly considered. The head and character of every child and adult, should be trained and fashioned in harmony with this law; and those thus formed, are models of perfection.

Our developments constitute the media through which we look at objects; and our judgment, conduct, and opinions are

mainly governed by them. An uneven head, or one in which some of the organs are large and others small, indicates an equally uneven *character*. Such are liable to have excesses and defects; to take partial and one-sided views of subjects; and liable to *extremes*, which is only another name for imperfection and excesses, and means much the same thing as tendencies to evil. But an even head, in which all the organs are equally developed, and the faculties harmoniously exercised, indicates correct judgment, consistent conduct, perfection of character, and a virtuous, happy life. [See Journal department, pp. 15 and 57.] Indeed, the very definition of virtue, according to Phrenology, is the harmonious exercise of all the faculties in due proportion, upon their legitimate objects, controlled by the moral sentiments and directed by intellect; whilst vice or sin consists in the *excessive*, *defective*, or *perverted* action of the faculties, and especially of the animal propensities, *not* thus directed. This principle applies both to the *individual* faculties, and to their *classes*. Thus, when the propensities predominate in action, they demoralize and debase reason and moral feeling—the highest, noblest gifts of God to man—and whilst, in one sense, they assimilate the "lord of creation" to the "beasts that perish," in another, they render him far worse, because of his greater susceptibility of enjoyment and suffering. Selfishness punishes its possessor. A selfish or vicious man is of necessity a miserable being; for his selfishness and vice naturally render him so. On the other hand, their deficiency constitutes imperfection; for one with feeble animal and selfish interests, has too little force to carry forward any important plan, or even to take care of himself. He must therefore be taken care of by others, and poorly, too; for, to depend upon others for support or protection, is to depend upon a broken reed.

On the other hand, those in whom the *moral* faculties are very large, and the animal weaker, are indeed good, moral, virtuous, &c., but they are *too* good—so *very* good as to be good for nothing. They have no force or energy to carry their good feelings into execution. A man with weak propensities and great intellectual organs, will never effect much with his intellect. One with weaker intellect and strong propensities, will effect much more.

A predominance of the propensities and intellect over the moral faculties, leads to most disastrous consequences; for powerful animal desires will then employ a powerful intellect to attain purely selfish, wicked ends, and stop at no means of attaining them. This was the organization of Patty Cannon, (see Phrenological Almanac for 1841,) and is that of most of the scourges of mankind. Nor is the predominance of the moral faculties without the propensities and intellect, favorable; for, though this organization gives piety, yet piety without intellect, is also bad. It lit the fires of Smithfield; caused the "Salem Witchcraft"; and has instigated most of the religious persecutions, and created pious rascality. But where each of these three great classes of faculties are equally developed, the propensities give force, daring energy, and eager desires; the moral, convert the animal into a philanthropic and religious channel, and the intellect guides them both, by the light of reason, to happiness—the great end of our being. The propensities require to be strong, but should be checked, and made subservient to high moral ends; the moral sentiments require to be predominant, but must have the helping-hand of the propensities to carry them out, and both require knowledge to enlighten, and judgment to conduct them, to the best results.

This same principle of balance or proportionate action, applies with equal, if not still greater force to each of the faculties. The predominance or deficiency of either is injurious; whilst their proportionate action is a leading condition of perfection and enjoyment. Thus, Amativeness fairly developed, and governed by the moral sentiments, produces connubial love, than which there is not a more virtuous or pleasureable feeling in man; but its deficiency causes the proportionate absence of this virtue, whilst its excessive action constitutes one of the worst and most painful of vices. Excessive Philoprogenitiveness spoils children by over-indulgence and excessive tenderness; whilst its deficiency cuts off the joys of a parent, and renders children intolerable and burdensome, instead of the greatest of pleasures; but its due development experiences all the joys of parental love; and if governed by enlightened intellect and high moral feeling, secures the best good of the parent. Excessive Combativeness, acting alone, creates contention, causing *physical* fighting, and a sour, ugly temper,

which is highly vicious, thereby incurring the penalty attached to the violation of this mental law; while this faculty, acting in obedience to Conscientiousness and Benevolence, becomes *moral* courage, defence of rights, and of the oppressed, &c., a highly virtuous emotion. The due exercise of Alimentiveness, by strengthening the body, and thereby the moral and intellectual qualities, is virtuous, bringing with it its own reward, whilst its excessive indulgence, by overloading the stomach, and thus clouding the intellect, and blunting the moral sensibilities, becomes vice. Average Secretiveness, governed by Conscientiousness, employs policy in a good cause, whilst its excessive action, unchecked by the higher faculties, leads to lying and duplicity. Acquisitiveness, or love of property, duly exercised, promotes industry and sobriety; gathers around us the comforts of life, and, aided by Conscientiousness, produces even-handed justice, whilst its predominance leads to cheating, extortion, &c. Excessive Cautiousness produces irresolution, procrastination, and timidity, and is unfavorable both to virtue and efficiency, but duly balanced, it gives that discretion which is the better part of valor. Does Self-Esteem predominate, unchecked by Conscientiousness or intellect, it inflates one almost to bursting with pride, self-sufficiency, haughtiness, and egotism; whereas its due development, controlled by the, moral and intellectual faculties, imparts dignity, and that self-respect which elevates one above meanness and trifling; causing him fully to appreciate and fulfil the great objects of life. But if it be small, he underrates himself, and is therefore underrated by others, and feels too diffident and insufficient to attempt great things. Predominant Firmness, uncontrolled, renders one obstinate; impervious to conviction; and blindly tenacious of his opinions, whether right or wrong, merely because of his *will;* but those in whom it is small, are too fickle to accomplish much; sow, but have no perseverance to wait for the harvest, "being blown about by every wind of doctrine," every new notion; but fairly developed and balanced, no element of character is more valuable. Predominant Ideality renders one fastidious, and too delicate and refined, whilst its deficiency leads to coarseness and vulgarity; but its fair development, blends the serviceable with the perfect, combining utility with beauty.

This same principle, that balance of faculties is indispensable to perfection of character, applies with still greater force to the *moral* faculties, besides explaining that diversity which characterizes the religious opinions and practices of mankind. Few think alike, even in the fundamentals of religion, and fewer still in its details, because of the difference in their phrenological developments. These constitute the media, or the colored glasses, through which we look at the Deity and his moral government, as well as at the moral relations of man to man, and to his Maker. Thus, the ancients, having large Veneration, paid great attention to religious worship; but as their Benevolence, Conscientiousness and Causality were usually moderate or small, and their propensities predominant, they worshipped gods governed by animal passion. This organization, combined with their powerful Amativeness, worshipped a Venus, or the goddess of love and beauty; with very large Combativeness and Destructiveness, a Mars, the god of war and carnage; with Acquisitiveness large, the god Terminus, who protected their property; with large intellectual and animal organs combined, a Jupiter, the dictator and governor of the world, to whom they attributed every vice in its most aggravated form.

In harmony with this principle, each modern religious sect has its own peculiar set of phrenological developments, which harmonizes perfectly with the peculiarities of its creed. To show minutely *what* developments characterize each, and their departures from the only true standard of religious faith and practice involved in this principle, would be to thrust our face into a hornet's nest of the worst character, which is unnecessary, yet we will give a few illustrations. Universalists almost invariably have large Veneration, combined with predominant Benevolence and Adhesiveness, and moderate Destructiveness, and hence adore God for his goodness mainly, and dwell in glowing colors upon his *love;* whilst the old-fashioned Calvinists usually have large Veneration, with predominant Self-Esteem and Firmness, and large Conscientiousness, and accordingly adore the *Sovereignty* and unbending *justice* of God. Has not the reader often seen stiff orthodox

deacons, whose heads rose rapidly from the intellectual organs to Firmness and Self-Esteem, showing more Reverence than Benevolence, and more Firmness and Conscientiousness than either, with a tolerably wide head? But did a Methodist, or Universalist, or Unitarian, or Episcopalian, ever have this form of head? These remarks do not apply to Congregationalists, nor to believers in the "New School" doctrines, whose Conscientiousness is usually predominant, but Self-Esteem moderate and Destructiveness only full, and whose high-toned, or rather ultra Calvinistic notions, are materially softened down. In them, Amativeness is usually moderate, and accordingly they abhor no sin more than its perversion.

Episcopalians usually have large Veneration, with predominant Benevolence and large Ideality, Firmness, Self-Esteem, and social faculties, with Conscientiousness not always large, though often full, and hence they place their religion in works of charity, and in attending "*the* church," rather than in penitence, and are not so strict and rigid as the orthodox; yet they are always genteel, rather exclusive, and eminently social. Nearly all their ladies have superior heads, are remarkable for devotion, good sense, the domestic qualities, and especially *Benevolence*—the best we examine except Quakeresses, though often rather proud.

The developments of the Dutch Reformed are much the same; whilst the Quakers have no characteristic moral developments, and accordingly allow their members to hold any and every belief, provided they *do* thus and so.

Infidels, Deists, &c., usually have moderate Hope, small Veneration, scarcely the least Marvellousness, large Benevolence, and Conscientiousness variable. I never saw one of Infidel sentiments who had not a poorly balanced moral head.

We always find that those who have Conscientiousness predominant, with small Veneration and Marvellousness, place their religion in doing *right*, or in honesty and morality, but disregard the *externals* of religion; whilst those in whom these organs are reversed, attend to its outward forms and ceremonies; but though they are devout, they are often unjust and immoral. Those in whom Benevolence predominates, place their religion in *doing good*, to the comparative neglect

of the other Christian duties; whilst those in whom Marvellousness is large, regard religion as consisting in *faith*, and implicit reliance upon Divine Providence; but those in whom this organ is small, do not feel that awe of God, that sense of the Divine presence, which this faculty inspires, but attribute all events to cause and effect. But those in whom *all* these organs are *fully and evenly* developed, "put on the *whole* armor of righteousness." They do *good*, do *right*, *worship* their God, and *trust* in his providence; which united, constitute the very *perfection* of the Christian character. Such take consistent views of God, of his attributes, and of moral subjects, besides living a blameless life, worthy, our admiration and imitation; whilst imperfect religious faith or practice si the natural fruit of unevenly developed moral organs.

This same principle of balance applies equally to the intellectual faculties. When they are all large, the judgment is good in regard to all subjects, but deficiency in any of them, impairs the judgment in regard to the functions of those that are feeble. Thus, let a picture be hung up for inspection, and if the beholder has Size large, and all the other intellectuals small, though he will judge accurately as to its *proportions*, and derive pleasure from admiring them, yet all its other qualities will be unseen, unadmired, and his pleasure proportionally restricted. But if he has Form also large, he will observe and admire its *likeness*, as well as its proportions, and thus be *doubly* delighted; and if large Color be added, he will also be delighted with the beauty of its colors, the richness and delicacy of its tints and shades, which will triple his pleasure. Add large Ideality, and he will discover what, without it, he would not have seen, the beauty, richness, and other qualities of the picture which appeal to this faculty.

One having large Eventuality only, will learn and remember events alone, including history, news, &c: with only Locality large, he will learn geography, and recollect places, but nothing else; with Form large, the shape of things; with Calculation alone large, he will excel in mental arithmetic, but be poor in every thing else; with Causality prominent, he will *think* much, and investigate *first principles*, yet be poor in other things.

If one's perceptive powers, which give the various kinds of memory, and the ability to collect and retain knowledge, greatly predominate over his reflectives, though he may be very apt as a scholar and talker, yet he will be superficial, lack thought, judgment and contrivance, and be incapable of ascending from facts to first principles; and on the other hand, if his perceptives are small, but reflectives predominant, he will have a wretched memory; be unable to command his knowledge, or bring his talents to bear upon practical matters; be given merely to speculative, scholastic, abstract, therefore-and-wherefore metaphysical theorizing, which is valueless; and though he may know *how* to reason, his knowledge of facts will be too limited to furnish data sufficient to form correct inductions. But where both are *equally balanced*, the former will collect abundant materials, which the latter will work up into correct arguments and sound conclusions. Both equally developed give a general talent, constitute a well balanced and truly philosophical mind, and give the true Baconian, inductive method of studying nature, by ascending from facts up to first principles—the only possible means of arriving at the truth. This development is not only perfectly adapted to the laws of nature, and harmonizes with the constitution of the human mind, but it also gives what is called sound common sense, correct judgment, and enlarged views of subjects; whilst its absence causes the intellectual lameness, warped views, and fallacious and diversified opinions, existing among mankind.

Those having large Language, and small Reasoning Organs, will talk much, but say little; and have words in great abundance and variety, but no *ideas;* and therefore experience and communicate but little pleasure: for who wishes to listen to senseless prattle? On the other hand, those having Language small, with large Reasoning Organs, will have excellent ideas and much valuable matter to communicate, yet be barren of expression; their rich mines of thought remaining buried for want of language, and the pleasure and profit of listening to them being proportionably abridged. But those having Language and the Reflective organs *both* large, will experience double pleasure, first in thinking, secondly in communicating their glowing thoughts in rich, expressive language; thereby

administering much pleasure and profit to their delighted list eners.

But the power and importance of this principle of balance, are greatly augmented when applied to the various *combinations* of the faculties. Thus, to have predominant Cautiousness is bad, but to have it combined with small Hope is much worse; causing the most gloomy apprehensions and fearful forebodings, and shutting out every ray of expectation which large Hope would throw in upon perpetual darkness. Excessive Approbativeness added, creates the strongest desire for approval, mingled with a constant dread of incurring censure, and no hope of obtaining that commendation so much desired —a most unhappy state of mind. Large Veneration and small Self-Esteem and Combativeness added to this combination, produce the most oppressive diffidence, accompanied with that confusion and utter want of self-possession which prevents any one, however talented or deserving, from accomplishing much, or even enjoying intercourse with men, together with pusillanimity and even cowardice. But let any one have these faculties equally balanced, and strong Approbativeness will aspire after distinction; strong Hope expect that praise which Approbativeness desires; large Self-Esteem impart enough, but not too much, of that "modest assurance" requisite to push one's self forward; large Cautiousness guard him against doing what is unpopular, and large Combativeness nerve him for contest with every difficulty, and give vigor and efficiency to all he says and does. And if his faculties are still farther balanced by large Intellectual organs, to give him the requisite talents, and high moral organs, to impart *moral* worth, and to sanctify his ambition, to elevate his motives, and ennoble his character; he will be every way calculated to enjoy life himself, and to become a blessing to mankind. But let either of these organs be much larger or smaller than the others, and his enjoyment will be proportionably marred, and his usefulness diminished.

Though predominant Acquisitiveness, which predisposes to dishonesty, covetousness, and a miserly selfishness and meanness, and also its deficiency, which allows extravagance, and diminishes industry, are each adverse to virtue and happiness,

yet the evil is greatly magnified by its combinations. Thus, one having small Acquisitiveness combined with large Benevolence, will give away largely to every apparently needy sufferer, leaving nothing for himself, and no capital with which to make more by which to aid future sufferers. Large Adhesiveness increases the evil, both by his ruining himself to help his friends, and then by exciting commiseration for those to whom he desires, but is unable, to administer relief; whereas, had Acquisitiveness been as large as Benevolence and Adhesiveness, he would have gratified the former by *acquiring* property, and retaining enough to live comfortably, and continue business in order to make more; and the latter, by giving the balance to relieve friends and sufferers. This would more than double his pleasure, besides preventing that distress occasioned by bestowing his all, and that perhaps upon unworthy objects.

But those in whom Acquisitiveness predominates over Benevolence, may indeed experience a sordid pleasure in *making* money, but are strangers to the exquisite satisfaction which accompanies works of charity. Predominant Acquisitiveness holds in its iron grasp the means of gratifying Benevolence by giving; Adhesiveness, by entertaining friends; Ideality, by having nice things, and indulging a refined taste; the Intellectual Faculties, by purchasing books, and taking time to think and study; Philoprogenitiveness, by spending money in educating and improving children;* Locality and Sublimity, by travelling; Conscientiousness, by paying debts, and freely discharging all pecuniary obligations; Hope, by investing capital in what promises pleasure to the other faculties; Approbativeness, by making a respectable appearance; Alimentiveness, by indulging in table luxuries,† &c.; thus abridging most of the

* About 20 miles from Raleigh, N. C., there lived an old miser, worth some $20,000, who allowed his only daughter to live destitute of every comfort, dressed only in clothes coarse and shabby, almost starved, and finally even to go to the poor-house, because he was too miserly to support her.

† In Norfolk, Va., in 1836, we were informed that a Mr. Green, a carpenter, had Acquisitiveness so strong, that he lived upon spoiled meat, cold victuals, and such ends of the table as he could get for almost nothing; and lived in an old back cellar, because he was too stingy to marry, though worth some ten thousand dollars.

enjoyments of life, besides preying ultimately upon itself by grudging every farthing expended, and giving its possessor a world of trouble for fear of losing his possessions. The combination of very large Acquisitiveness and Cautiousness, and small Hope, produces a state of mind truly deplorable. We were brought up near an old miser named Geo. Rogers, who had this organization, and who, besides burying his money in different places, watched it the whole of dark and stormy nights, suffering every thing from fear of being robbed.

The combination of predominant Acquisitiveness with *small* Cautiousness, by speculating too largely, and grasping at enormous profits, often loses all, besides contracting debts beyond the means of payment, inducing a perpetual series of difficulties, and, if Conscientiousness be small, prompting to dishonest and unprincipled conduct. Moderate Causality added, tries a variety of ill-advised ways and means to get rich, but fails in all, its possessor being tantalized with improper desires which he is unable to gratify, and making him struggle to grasp one straw after another, only to sink into still deeper poverty, and more hopeless disappointment.*

But when these organs are *equally* developed, Acquisitiveness desires property and prompts energetic efforts to acquire it; Hope creates due enterprising prospects, and feasts, but not to excess, upon unfolding prospects; Conscientiousness is gratified in paying all dues; and Cautiousness and Causality combine foresight and prudence with that judicious application of appropriate means to the end desired, which crowns one's efforts with success. This combination secures the harmonious exercise and unalloyed gratification of both these faculties, and of all the others if similarly developed.

One having predominant Self-Esteem, combined with large Firmness, Combativeness, and Destructiveness, and only moderate Conscientiousness, Approbativeness and Intellectual Faculties, will be self-sufficient, proud, haughty, imperative, overbearing, dictatorial, obstinate, insolent, supremely selfish, and revengeful towards all who do not obey his unreasonable demands, and submit to become his servant, and yet have too feeble an intellect to support his high-sounding pretensions: but one

*e. g. Speculators in mulberry trees in 1840.

having all these organs equally developed—large Self-Esteem to impart dignity and nobleness of character, so that he cannot be trifled with, combined with large Approbativeness to give affability and politeness, large intellectual organs to impart the strength of mind requisite fully to sustain his high pretensions,* large Conscientiousness to add *moral* worth to intellectual greatness, and large Firmness and Combativeness to impart perseverance, moral courage, and energy of character, will duly respect himself for his moral and intellectual qualities alone, and combine the man and the gentleman with superior intellectual abilities and high-toned moral principle; thus enjoying life himself, and promoting the happiness of those around him.

Another still more striking illustration of the importance of a *balance* of the faculties, might be drawn from the *social* organs; and others still from *every phrenological and physical organ in man.* But why enlarge upon a principle the necessity and value of which are self-evident—a principle clearly shown to be so powerful and universal in its application, as to be inseparably interwoven with the nature and happiness of every human being? Have we not already shown *how* it is that a *well-balanced* intellect is so superior to the same amount of intellect not balanced—*how* the moral faculties, when harmoniously developed and exercised, produce that moral feeling, that true piety, which constitutes the grace of graces—the crowning excellence of man—and that this endless diversity in the religious faith and practice of mankind which disgraces modern Christianity, and makes so many infidels, is caused by a *want* of this balance? Indeed, words cannot express its value and importance. Hence, should not parents and teachers, in educating the young and moulding their character, physical, intellectual and moral, and, indeed, ALL who seek health, long life, happiness, or self-improvement, be guided by it as their polar-star, making it the nucleus around which their every effort to remedy defects or cultivate virtues should cluster?

This principle has one important qualification which we wil simply state here, but not illustrate until we come to speak of the education of the *moral* faculties; namely, that Phrenology

*Dr. C. Caldwell has this combination.

requires every action of our lives, every emotion of our hearts, our every motive, to be governed by the dictates of the moral sentiments, enlightened by reason. Without this, there can be no virtue, no happiness.

SELF-KNOWLEDGE: MEANS OF OBTAINING IT.

The *path* of self improvement is thus opened, and the *first* step is, to *study yourself.* This study will show you what you *are,* and the principle just explained, what you should *become.* Before you can repair your watch, you must ascertain just what portion is out of order; and before you can do the *first* correct thing towards self improvement, (except by accident,) you must know *wherein* you depart from this standard of perfection.

"KNOW THYSELF," was written in golden capitals upon the splendid temple of Delphos, as the most important maxim which the wise men of Greece could hand down to unborn generations. The Scriptures require us to "search our own hearts, and try ourselves;" and the entire experience of mankind bears testimony, that *self*-knowledge is the most important of *all* knowledge. A thorough knowledge of one's own self---of his good properties, and how to make the most of them; of his defects, and how to guard against the evils growing out of them; of his predispositions to, and sources of, temptation to excess and error, and the means of keeping these desires quiescent; of what he is capable of doing and of becoming, and what not; and wherein he is liable to err, either in judgment or conduct----is more intimately associated with his virtue, and happiness, and success through life, than any other, than *all* other knowledge united. Before he can correct any defect, he must know precisely in what that defect consists----must know the *precise faculty* that is too strong, or too weak, or wrongly exercised.

Now, this very knowledge, phrenology, if true, furnishes, and that with the certainty attending *physical demonstration.* It will enable every individual to place his own fingers upon every element of his character; and in case his predominant self-esteem has rendered him proud and self-conceited, or its deficiency led him to underrate his capabilities or moral worth,

adduced diffidence, it will correct these estimates, and teach men precisely what they really are.

But in case you cannot afford *time* to study Phrenology enough to arrive at this self-knowledge with the required precision and certainty, apply to a skilful and experienced practical Phrenologist, *not* from motives of curiosity, not to test the science, not to be amused, but to *learn your failings.* Tell him frankly your object, your circumstances, state of health, education, parentage, &c. Request him to examine your *physical organization*, or state of body, (see p. 19,) as well as the development of your organs, and to give *physiological* as well as phrenological advice. Request a *thorough* examination, and a full, frank exposition of the true state of the case, placing yourself under his instruction as you would under the tuition of other teachers, or as in the case of a physician when sick. By combining your own experience with his examination, you will be able to learn with certainty at least all your *leading* excesses and defects: their *remedy* will be pointed out in the following pages. If he requires additional compensation for this extra labor, it will be money well spent, *provided* he can be *relied* upon as a correct examiner;* otherwise his examination is worth nothing.

* This shows how infinitely superior *practical* Phrenology is to all the books ever written or lectures ever delivered upon the science itself, or its bearings. This "examining heads" has been frowned upon long enough by speculating, reasoning, book-making phrenologists. Even George Combe, to whom all conceed superior abilities as a writer merely, when solicited to examine heads, uniformly replied: "*Sir, I did not come to this country to examine heads.*" Were examining heads wrong or disgraceful, this reply would have been right; but there is no *other* justification of it except *inability.* The New York Phrenological Society refuses to admit any practical Phrenologist as a member, because of their hostility to examinations; and Andrew Boardman, in his introductory to George Combe's Lectures on Phrenology, takes strong ground *against* practical Phrenology, thereby putting weapons into the mouth of anti-Phrenologists. (See Dr. Hamilton's Lecture, p. 25.) Let the public judge between them and us. We have fought a desperate battle, not against anti-phrenologists merely nor mainly, but *against these* PHILOSOPHISING *phrenologists.* But the day is now ours. This application of practical phrenology to the ascertainment of faults preparatory to their

Having shown in what perfection of head and body consists or the one great and leading condition of virtue and enjoyment, namely in the even development and harmonious exercise of our faculties of body and mind, we fall back upon the eventful enquiry, "Do any means exist of attaining this harmony, or of improving the character? Can the weak faculties be strengthened, and the energy of predominant ones weakened? or is man fated to carry his faults, virtues, excesses and defects to his grave? Our answer is an unequivocal NO! We say with *emphasis*, that weak faculties *can* be strengthened, and the power of predominant ones reduced; and that their *organs* can be enlarged and diminished. We know, indeed, that, although the organs in children are more evenly developed than in their parents,—a proof that our leading principle is founded in nature,—yet that the *natural* tendency is for the large organs to become larger, and the small ones smaller----the very reverse of what should take place. The *reason* of this is, that the larger an organ becomes, the greater the pleasure taken in its exercise, and the more spontaneous and continual its action, which re augments its size, and re-increases its activity; and also, that when nothing special occurs to excite a given faculty its organ becomes sluggish, and remains mostly quiescent which reduces its size. This decreases its capacity to afford pleasure, which still farther diminishes its action and weakens its power. This principle illustrates the Scripture doctrine, that "to him that hath shall be given, and he shall have more abundantly; but from him that hath not shall be taken away even that he hath." Phrenology shows both how to counteract, and how to *reverse* this unfavorable tendency. There *is* a way to *increase* and *decrease* the size of organs and the power of their faculties.

The reader will see that we are now approaching a most important subject; but before we can consistently point out the *means* of attaining this most desirable end, we shall be required to demonstrate the *fact*, that the organs *can* be enlarged and diminished, and the power of their faculties increased.

correction, is itself a host. Every anti practical phrenological Society has already died; and without practical Phrenology, the science itself must inevitably die, at least in practice, with this matter-of-fact age and nation.

And here a serious difficulty presents itself, namely, how is it possible for so soft a substance as the *brain* to press out so hard a substance as the *scull*. This question should be discussed, not upon the ground of *reason* alone, nor solely on the ground of *fact*, but according to that principle of balance we have presented, of the *two combined*. We will then show, first the *rationale* of this enlargement, or *how* it can take place, and secondly, establish it by *facts;* though Phrenology says that the facts should *precede* the reasonings.

1st. The *whole* head continues to enlarge till after thirty, and the inference is conclusive that if the resistance of the scull does not prevent the enlargement of the brain as *a whole*, it will surely allow any *part* of it to become enlarged. 2d. Phrenology demonstrates the fact that the brain is composed of particular organs, each of which exercises a particular function; and both Physiology and daily observation establish the fact that the exercise of every organ causes a flow of blood to that organ in proportion to the vigor and continuance of that exercise. Hence, the vigorous and continuous exercise of any *faculty*, as of Benevolence, Causality, Combativeness, &c., causes a proportional flow of blood to its particular organ; which blood is freighted with matter which it deposites wherever it goes, and in proportion to its abundance. This causes each *organ* to enlarge in proportion to the exercise of its *faculty*. This law of increase by exercise, and decrease by inaction, is familiar in its application to the hands of sailors, laborers, &c., to the feet of expert dancers, pedestrians, &c.; to the chests of rowers; to the right hand compared with the left, and indeed to every portion of the body; and since the brain is governed by this same physiological law, the exercise of any faculty will cause a proportionate flow of blood to its organ, which will naturally enlarge that organ. 3d. This enlargement is caused not by the *mechanical pressure* of the brain upon the skull, but by the natural process of growth and formation. The matter which composes the body is not permanently fixed in its place, but is undergoing a constant succession of changes, (See Combe's Physiology published in connexion with the Journal, p. 46.) abundantly sufficient to allow of any required changes in size. One portion of nature

never prevents or interferes with, the action of any other part. The bark of the tree, notwithstanding all its strength and toughness, allows the liquid sap to insinuate itself between this bark and the wood, thereby causing the enlargement of both. Neither the shells of oysters, lobsters, turtles, &c., nor the toughness of the skins of animals, prevent their growth. Why then should the scull, which is merely the protector and servant of the brain, throw any serious obstacle in the way of its enlargement?

One of the means by which nature effects this enlargement of organs is, rendering the scull covering them *thin;* whilst in their diminution it becomes thicker. In our collection, we have some twenty sculls illustrating these phenomena, and none known to mitigate against them. A physician in Westchester Co., Pa., presented us with the scull of a female, respectably connected, who, in spite of the entreaties of her friends, had voluntarily abandoned herself to the indulgence of Alimentiveness and Amativeness, and whose scull is so very thin as to be transparent where these organs are located, but not elsewhere. The scull of John Earl, who murdered his wife, and who was given to the unrestrained and habitual indulgence of both these passions, is also thin in the same places. So is that of Burley, presented by Mr. Harris, treasurer of the London District, U. C., and a volunteer in the burning of the Caroline. This Burley armed himself for the purpose, and deliberately shot the sheriff who was arresting him for stealing a young bullock and killing it for food He was an habitual drunkard, excessively licentious, and by turns extremely given to prayer and religious exercises.* One of his religious seasons immediately preceded his execution. When swung off, the rope broke. During the consequent delay, he proposed to have a season of prayer, and was himself earnestly engaged in supplicating the Divine blessing when the sheriff interrupted him to readjust the rope.

L. N. Fowler has the scull of a slave, so notorious for his propensity to steal, that after he had been repeatedly whipped

* For a satisfactory *explanation* of this seeming anomaly, see Journal department, pp. 21, and 107.

almost to death for stealing, but to no purpose, on the perpetration of a new theft, his master, seizing an axe, struck it through his scull into the brain, exclaiming, "I *will* break you of stealing if I have to kill you." He lived, but still continued to steal; and, his scull is remarkably thin and transparent at Acquisitiveness and Secretiveness. The scull of another slave, noted for kindness, is thin where *Benevolence* is located.

He has also the scull of a woman, who, from being a moral and virtuous member of society, and a consistent and exemplary professor of religion, became a self-abandoned outcast, and grossly immoral, yet was passionately fond of music. This scull is thin where Amativeness, Combativeness, and Tune are located, but thickened upon the *top*, in the region of the *moral* organs. We will gladly show those of our readers who visit us, these and many other similar proofs and illustrations of the fact, that the exercise of an organ absorbs the portion of the scull covering it, so as to render it thin; while inaction, and also excessive action, reduce the size of the organs, allowing the scull to become thick. Indeed, this point has become fully established; and, although it prevents our *observing* the *whole* of the increase in the size of active organs, still it shows *how* an increase and decrease of organs *can* take place.

It is, therefore, possible to enlarge and diminish the size of the phrenological organs; first, by the scull becoming thin; and, secondly, by the actual protrusion of the scull itself.

Having shown both the possibility and the "*rationale*" of an enlargement of the organs, we next proceed to *demonstrate* this point *by facts*. In 1835, Mr. Balley, of Manchester, England, took from life a bust of the Rev. John Pierpont, of Boston. In 1841, we took from life, a bust of the same head. The latter shows a decided increase of the whole intellectual lobe over the former. This increase any accurate eye will detect instantly, the latter being deeper, broader, higher, and every way more ample. Benevolence and Combativeness are larger. while Cautiousness is smaller, in the latter than in the former. The *cause* of this increase of some organs, and decrease of others, is to be found in the vigorous and almost continual *exercise* of his intellectual faculties in the composition of poetry

for which he has become justly celebrated in lectures in the cause of temperance, truth, and freedom; as well as in his severe and protracted intellectual and moral contest with the rum-sellers of his congregation. Is an ode or poem wanted on occasions like the death of Spurzheim or Harrison, or for any national or local jubilee, Rev. John Pierpont furnishes the best. His unremitted labors in the temperance cause, the number, power, and eloquence of his lectures on various subjects, the logical clearness and cogency of his letters to his vestry, evince a powerful and continuous exercise of his intellectual *faculties*, sufficient to account for the increase of his intellectual *organs*, as well as of Benevolence and Combativeness, and the *decrease* of Cautiousness.

This case establishes our position beyond a doubt. Both busts were taken when he was upwards of forty, and both were so taken that the manner of taking could cause none of this striking difference. The case is clear and unequivocal, and subject to the inspection of all who wish to see or purchase copies.

A few days ago, Mr. J. G. Forman, a phrenologist, remarked to us, that he had recently seen a woman in Sing Sing prison, who, from a child, had seen with the right eye only, and whose perceptive organs on the *left* side, were much larger than on the right. We proposed to send our artist to take a mask, and Mr. F. kindly volunteered to accompany him. Our *first* glance at the mask disappointed us; for, Calculation and Order were equal on both sides. But a second glance actually electrified us with delight; for, it revealed the fact that Individuality, Form, Size, and Locality, the functions of which are exercised mainly by means of the eye, were much *larger* on the side *opposite** the seeing eye than the

* Our recent discoveries in Magnetism and Phrenology combined, show that the magnetic currents all *cross* each other. Thus, each Phrenological organ has a magnetic nature and current in each hemisphere of the brain, which extend to the face, but *cross* each other. The magnetic current of the *right* organ of Cautiousness terminates in the *left* side of the face, and "*vice versa*;" and so of all the organs. We have many facts in our possession which go to establish this principle of *crossing* to be a law of our nature, showing that when the exercise of any phrenological faculty calls any bodily organ into exercise, this principle of crossing always takes place.

same organs *over* the seeing eye; while the organs of Order, Calculation, and Weight, which can act as well *without* the aid of the eye as with it, or at least as well with one eye as both, were *alike* on *both sides*. This difference is most striking. Locality rises nearly half an inch on the *left* side, above the *same* organ on the *right* side. Size on the left side has both elevated and protruded the inner portion of the left eyebrow about half an inch, while Language, Comparison, and Causality are *equal* in both. This mask can be inspected and obtained.

In our collection may be seen two masks of Oldham, machinist to the Bank of England, taken by Spurzheim twenty years apart. The last, after he became celebrated throughout Europe for his mechanical and inventive powers, shows a breadth at Constructiveness greater than the first by nearly an inch, while the other organs remained nearly stationary. Spurzheim exhibited these masks in Boston to prove the possibility of enlarging the organs, which was a favorite doctrine with him.

The bearing of these facts is positive and direct. They prove, beyond all dispute, the possibility of enlarging the size of organs by exercising their faculties, as well as of the required protrusion of the scull, and hence prepare the way for evidence less positive in its character, which, without this as an entering wedge, would be comparatively valueless.—They *demonstrate* the point now under consideration, which, once established, may now be illustrated and enforced by an order of evidence too low in itself, satisfactorily to prove it.

Deville's cabinet in London, contains about seventy busts illustrating this point. Caldwell brought over with him some fourteen of them, and says that this increase of organs is placed beyond a doubt by these and other specimens. Dr. Carpenter, of Pottsville, Pa., and Prof. Bryant, of Philadelphia, and many others who have seen these casts, bring a similar report of them. One of these changes occurred in the head of Herschel, the great astronomer. In the first, taken when he was about forty, to which time he devoted himself to music, Tune is very large, and the perceptive organs are no way remarkable; whereas, in another, taken when about sixty, after he had dropped music and become the first Astronomer of the

age, the perceptive faculties are astonishingly developed, but Tune diminished.

Franklin.

Herschel.

The accompanying cut of Herschel, copied from an English engraving said to be the best ever taken, shows enormous perceptive organs in the length and the arching of his eyebrows, and bears evidence of its having been taken when he was about seventy; whereas, a mask of him now in our collection, evidently taken when about forty, shows only a fair development of these organs.

Several months since, we wrote to M. B. Sampson, our London correspondent, to forward us copies of Deville's specimens illustrating this point, hoping to receive them before we published this portion of the lecture. The following, while it explains the cause of their delay, gives encouragement of their early reception:—

Dated BANK OF ENGLAND, Feb. 3, 1842.

"In the course of a week or two, I shall procure from Mr. Deville the casts which you require, and will send them to you without delay. You would have received them ere this, but Mr. Deville has been confined by indisposition."

Changes similar to those already described, evidently took place in the head of Franklin, except that his reflectives evidently increased, but perceptives diminished. An engraving of him, copied from a portrait taken when he was a young man, will be found, which represents the perceptive organs very large, and Causality retiring, so as to leave his forehead narrow and sloping at the top, evincing prodigious Individu-

ality, Form, Size, Locality, and Eventuality, and large Comparison, with but moderate Causality.*

We have also a plaster bust of him, taken from a marble bust made in France, by Oudon, whose accuracy in sculpturing is too well known to require comment. In this bust, chiselled after a mask, taken from Franklin's *face*, and said to be a perfect likeness of him at that time,† his perceptives and reflectives are both large, the perceptives rather predominating, but reflectives prominent. But in the statue taken of him when old, and placed in a niche in the Franklin Library, in Fifth street, near Chestnut, Philadelphia, Causality and Comparison stand out in the boldest relief, while Individuality and Eventuality are small. Most of the busts and engravings of this great philosopher found in shops, books, &c., represents him as old, and evince predominant reflective organs, but deficient perceptives. See the portrait of him in *Peale's Museum*.

Our next inquiry relates to the existence or absence of a *corresponding* change in his intellectual *character*. Of this we allow all to judge for themselves, but our firm conviction is that *young* Franklin was remarkable for observation, memory in general, desire for acquiring knowledge, especially of an *experimental* character, and facility of communication, &c.; while *old* Franklin was all reason and philosophy, rich in *ideas*, full of pithy, sententious proverbs, which are only the condensation of Causality, and always tracing every thing up to the causes and laws of things, but less inclined to observe and remember facts *as such*.

This conclusion is endorsed by the *natural language* of his organs—an unfailing index of the true character. *Young* Franklin is represented as throwing the *lower* or *perceptive* portion of his forehead forward, which evinces *their* predominance; while *old* Franklin, as in the accompanying cut, throws the *reflective* organs forward, as if in the attitude of deep

* See a recent Boston edition of his works.

† This original marble bust was, we believe, recently purchased by some scientific body in Philadelphia, and the *original mask*, taken from his face, was recently sold, among other effects of Oudon, for about two dollars, and was taken to Italy. Will not some American traveller in Italy procure this original, or a copy?

thought. This shows young Franklin to have been what his portrait, taken when he was young, evinces, namely, a great *observer;* but, old Franklin to have been a profound *reasoner,* a characteristic already shown to appertain to his later busts and portraits.

The likenesses of Buonaparte, as stamped upon coins of different dates, show a decided enlargement of his forehead, especially of his reflective organs, as he advanced in years. This difference is very great; and, if exercise enlarges the organs, surely those of no other man would be enlarged faster.

Let us now enter another field of inquiry, to see if we obtain similar results from another class of observations more general. Stone-cutting, and especially the lettering, requires a vigorous and intense exercise of Form, Size, and Locality; and, accordingly stone-cutters all have these organs *large.* For the correctness of these remarks, we appeal to observation.

Not one man in fifty is found to possess Weight above moderate, while nearly all the sea-faring men we have ever examined, have had this organ fully developed, with large Form and Locality, and usually Order and Calculation. The *reason* of this is obvious. This organ keeps the balance; and, since the perpetual motion of a ship is continually destroying this balance, Weight is kept unceasingly active to regain and preserve it. Their Form is brought into frequent and vigorous action by looking for, and watching ships, land, &c., in the distance; and Locality, by remembering the beds of rivers, the navigable parts of harbors, the localities of rocks, shoals, &c., by remembering the looks of various parts, as well as by practical geography in general. In machinists, engineers, and those who work about machinery, this organ is usually large, and also billiard players, expert marksmen, good riders, &c., while ordinary mechanics, not connected with machinery, usually have it small, except those whose occupation requires climbing. In females, Weight is seldom developed; yet, in factory girls it is unusually large. Constructiveness was found to be large in all the weavers.

At Adams, Mass., in 1834, we were struck with the fact that all the *weavers* examined, had large *Concentrativeness,* an organ below par in ninety American ladies in every hundred. The same results have been observed in every factory we

have visited. At Young's factory, in Delaware, in 1839, we selected some fifty weavers from those employed in other occupations, making but a single failure, and that on a lady of thirty-five, who had been weaving only fifteen months—too short a period fully to develope this organ. The reason is obvious; for, weaving keeps the whole mind exclusively occupied upon one and the same thing, day after day, and year after year. This will serve as a valuable hint to those who wish to improve this organ. Englishmen and Germans generally have this organ large, while it is small in most Americans, which corresponds with their national habits. The former usually devote themselves exclusively to one study or occupation, and can make a living by no other, while the versatile talents of the latter enable them to turn their hands to almost any and everything with success. One leading error of modern education is, putting scholars to reading, writing, spelling, arithmetic, definitions, geography, grammar, drawing, &c., &c., all in six hours. Just as this organ concentrates the mind upon one study, another study is thrust upon them, and hence Americans know a little about every thing, yet not much about any *one* thing. We have, however, observed that scholars taught by teachers having Concentrativeness large, are apt to have it large also. We recently visited the school of Mr. Morris, in whom this organ is large, who stands deservedly high as a teacher, and all but two or three of the thirty examined, had it above moderate; whereas, in ordinary scholars, the tables are *reversed*. Stating our surprise at this, we asked for an explanation, and the answer satisfied us that his having called it into continual *exercise*, was the cause of its unusual development.

Inhabitiveness is almost universally large in those who have lived in one house till fifteen, but small in those who moved in childhood. In thousands of instances, when examining the heads of children, we have said to their parents, "I perceive you have moved since the birth of this child, or else it has lived from home," and do not remember to have failed more than two or three times in our lives; in which cases hereditary influences prevailed over the exercise of the organ. The reason is this: Inhabitiveness becomes attached to the homestead where one has lived; to the domicil in which we are

reared, and the surrounding trees, stones, &c.; but removing, disturbs this attachment, and weakens the organ.*

We have examined many blind persons without finding one in whom color is even fairly developed. As color is exercised by means of the eye, it is not surprising that its not being exercised, keeps it small.

The deaf and dumb converse mainly by *signs*, and by acting out what they want, that is by imitating. They are the best actors of pantomime, and the best mimics te be found. This continual exercise of Imitation is doubtless the cause of its being universally predominant in this class.

In nearly every Scotchman, Causality and Conscientiousness will be found to be large, which is in keeping with their reasoning so much upon moral and doctrinal subjects. For additional facts of this class, see the chapter on this subject in "Fowler's Phrenology," p. 365.

Probably not one New York city lady in twenty, has Acquisitiveness above moderate;† while a large proportion of Yankee ladies have this organ full. The latter are taught industry from the cradle, but whether this is true of the former, we leave others to judge. In southern ladies also, this organ is usually small. Constructiveness is much larger at the north than at the south, and in manufacturing towns than in the classes that are too good to work. After examining ten heads in any place, we can usually tell the general character of its inhabitants, whether they be proud, secretive, acquisitive, moral, ingenious, &c. Every *place* has as much a distinctive character as every *person*. This is easily solved by supposing that the original founders of these places had certain faculties predominant, and by continually exercising them, excited the same in all new comers, and thus developed the corresponding organs, thereby stamping the impress of their own minds upon others. Other causes, however, doubtless aid in bringing about this result. This principle explains, in part, why law-

* This aims a deadly blow at the *renting* system, lately becoming so prevalent. That system is wrong, and will eventually be found to produce evil both to landlord and tenant. See our analysis of Inhabitiveness in our pamphlet on "Phrenology applied to Matrimony," which will soon be published in connexion with the Journal.

† No wonder the times are so hard.

yers and politicians have large Language, Combativeness, and Comparison—their vocation bringing these faculties into constant action; and why the religious denominations have each a characteristic set of developments, as mentioned on p. 37, &c, though the major part of this is doubtless caused by hereditary descent.

We grant that these and similar facts, if weighed *by themselves* in the scales of inductive reason, would be light, and might not even cause it to preponderate in their favor; but, thrown into the same balance with the busts already mentioned, they add much weight to a scale already preponderating in their favor.

But another class of facts more unequivocal, is found in examinations of the same head, made at different periods. As the public have given us some credit for correct examinations, they will doubtless place some reliance upon the results of our observations, when we say that every year's practice increases our astonishment at the number and extent of these changes, a few of which we will narrate.

In 1836, a gentleman was examined by us, and his Veneration marked three, we at the same time putting his finger into the marked depression between his Firmness and Bene volence. A few days ago he called again, and we marked Veneration *large;* the depression to which we called his attention in 1336, having been *entirely filled up.* He then stated that he became a praying man soon after our first examination, and had continued one ever since. He called mainly to inquire if becoming religious *could* have caused the change in his developments, which he had observed for the last two years.

In 1835, we examined the head of Mr. S., of R., and ascribed to him strong religious feeling, making our whole examination turn upon this point. In 1841, we re-examined him without knowing him, and the moment we touched his head, we exclaimed, "Infidel, irreligious, utterly destitute of belief," &c. At our first examination, he was a very consistent professor of religion, and zealously engaged in promoting revivals; but, soon after, he became a disbeliever; and, at length, a confirmed infidel, so that he was expelled from the church, not for immoral conduct, but solely on the ground of his *infidelity.*

In 1836, a young gentleman of considerable intelligence, stated that when a boy, he had a school-mate of exactly his size, age, and height, whose clothes and hat perfectly fitted him; that when of the proper age, his friend went to West Point, and he to a mechanical trade; that when his friend had graduated, they met, and again changed hats; that his friend's hat, instead of fitting his head as before, was too large in the forehead, and too small over the temples, whilst his hat pinched the *forehead* of the cadet, but was loose over Constructiveness; thus showing an increase of the intellectual organs, and particularly the reflective, in the cadet, whose studies called these faculties into powerful action, and an increase of Constructiveness in the head of the mechanic.

I have always found Eventuality very large in Jews. They were required to tell the Lord's doings to their children and grand-children, in doing which, they powerfully exercise their Eventuality. The same is true of the North American Indians, who perpetuate their history in the memories of the rising race.

In the children of the rich, Acquisitiveness is almost invariably small. Having every want supplied, and therefore no occasion for the exercise of this faculty, its *organ* becomes *small* from mere *disuse.**

In nearly every soldier and inferior officer whom we examined in Canada, (and they were hundreds,) we found predominant Firmness, Self-Esteem, Amativeness, and Alimentiveness, and large to very large Combativeness, Destructiveness, Hope, and perceptive Faculties; with smaller Causality, and deficient Conscientiousness and Acquisitiveness—the very organization which their occupation would produce, provided our doctrine of increase by exercise, and decrease by inaction, be true. They cultivate a bold, daring, reckless spirit; drink and carouse daily; and have no occasion to exercise Acquisitiveness, for their food, raiment, &c., are furnished, whilst their pay is regular, and scarcely capable of being increased. All their associations deaden Conscientiousness, and excite their passions. It is possible that men with this organization seek the army,

* How beautiful and efficient a contrivance this for preventing the amassing of immense wealth in a particular family, and for scattering the hoarded thousands of the miser! (See our article on the "hard times," No. 2, p. 76.

yet more probable that military associations enlarge and diminish their developments.

Our argument for the increase of organs by exercise, derives additional force from its beautiful harmony with many analogous phenomena. In one of our examinations, reported in the Journal, we related a fact, showing that the intense and continuous action of organs, turned the hair above them gray. We could give scores of facts of this class, accompanied with names and dates. Another article, wrttten by a Canada correspondent, showed that the excitement of any faculty caused an itching or tickling sensation of its organ. In another, we showed that the recent activity of faculties could always be detected by the sharpness of their organs, &c.

Every reader, who will take the trouble to observe, will find that when any of his faculties have been called into unusual activity, their *organs* feel as if crawling, or disturbed, or feverish, or heated, according to the kind and extent of the excitement. If it did not savor of egotism, we would relate our own experience and observation, for the last ten years, since we became conversant with this subject. Observe your own mental exercises, in connection with your cerebral sensations, and you will daily be more and more surprised at the numerous and striking coincidences of this character. Those who think, write, study, lecture, &c., much, will frequently put their hands to their *foreheads;* whilst those who are fond of family, and much at home, when they sleep away from their family, will involuntarily put their hands upon their *social* organs.

President Mahan, of Oberlin, to whom all must concede a highly excited state of the *moral* faculties, when recently preaching in New York, often put his hands on the *top* of his head. In short, this principle of the increase of organs by exercise, will be found to harmonize most strikingly with all the facts, and *classes* of facts, that can be brought to bear upon it.

Agam, we know that marked changes of *character* often take place. If, therefore, this principle of a corresponding change of *organs* did not obtain, Phrenology could not be true, because at war with the known manifestations of mind;

whereas, this principle goes far to prove its truth, by proving a coincidence between known changes of character, and *accompanying* changes in the developments.

Turning from the organs to their faculties, we find *them* also susceptible of improvement to a degree truly astonishing, which, after all, is the thing mainly desired—the increase of the organs being only a means of attaining this most important end. Who does not know that every species of memory, taste, judgment, and indeed *every* faculty of mind, are susceptible of improvement to a degree really surprising? and does not this degree far exceed what is generally supposed? This increased power of function, is gained, not exclusively, not even mainly, by the increased *size* of their *organs*, but by their greater *activity*, and *facility of action*.

There is no principle or fact in nature, which we contemplate with more intense delight, or in propagating which we glory more, than the one which we are now advocating. It shows how to *improve the immortal mind*, how to *educate our race*, how to diminish human suffering, and promote man's highest happiness. It holds out, in the language of *demonstration*, to one and all, a sovereign remedy, a *panacea*, for all intellectual weaknesses and moral maladies. Is your memory short or treacherous to its trust, it shows you how to strengthen it. If any of your passions predominate, it teaches you how to reduce their power and activity; or, if any faculty be weak or inactive, it shows how to cultivate and invigorate it.

But it is to *parents* that it holds out by far the brightest star of promise. You *love* your children as you love your own souls, and are even more anxious to improve *them* than yourself, because you are too apt to regard your season for improvement as past. You are ever ready to expend your time or your money, upon their intellectual or moral education; but, unfortunately, hitherto you have only groped your way in the dim twilight, while this principle opens upon you the full orb of reason and mental science—the only correct guides to the results you seek. But let it be remembered that so precious a jewel as mental and moral improvement, cannot be *purchased*, or obtained by *proxy*, or inherited, except in its rudiments, but must be *cultivated*, and that by every one *for himself*. Parents and teachers may indeed place the proper means or

mental stimulants before the minds of the young, just as they may place nourishing food before them, but can no more *exercise* the minds of children by proxy, than they can eat, or sleep, or breathe, or die for them.

Reader, do you desire to know *how* this can be effected? Do you wish this mine of self-improvement opened, so that you may begin now to lay up its richest treasures? Then give us your ear. The means of self-improvement are simple, easily applied, and within the reach of *all;* and, they are certain and powerful. They consist simply in EXERCISING the organs you wish to improve; and, in *not* exercising those you wish to restrain. This, every one must do *for himself,* and do it, not "here a little and there a little," but HABITUALLY; and, the richest harvests mortals *can* reap, will crown your efforts—harvests infinitely richer than all the mines of the world, because harvests of *moral* pleasure and *intellectual* attainment; harvests as far above all earthly possessions, as mind is superior to matter.

Will you sow, that you may reap this harvest? or, will you fold your arms, and allow your brain, at least in part, to die; yes, *to die* while you live, merely from inaction? Does not the glorious truth, just presented, inspire your hope, and nerve your determination to carry forward your intellectual and moral attainments as high in the scale of improvement as nature will allow? Already, you eagerly ask, "*how* can we exercise our *faculties,* so as to enlarge the *organs? how* bring them into vigorous and continuous exercise? *how* discipline the intellects, and call out the moral feelings of children and youth? Listen again, and we will present

THE MEANS OF EXCITING THE FACULTIES.

Every faculty has its own proper *aliment* or *stimulant,* the presentation of which *naturally* induces spontaneous action. Thus, Alimentiveness is stimulated, not by gold or diamonds, but by *food,* its natural exciter. Hence, the sight of food, or seeing others eat, or even the taste or smell of food, excites hunger; whereas, without these natural stimulants, Alimentiveness would have remained quiescent. Acquisitiveness is stimulated to action by property, or the *possession* of things, &c., but not by food, or distress, or danger. Causality is ex-

cited to action by bringing causes within its reach. To excite and thereby strengthen this faculty, think, reason, inquire into the *causes* of things, and trace out the relations between causes and effects—that is, bring this faculty into action upon the causes, principles, and laws of things. Combativeness is excited by *opposition*, not by beef-steak, or money, or a fact in philosophy.* Approbativeness is excited by praise or reproach; Benevolence, by suffering; Reverence, by thoughts of God; Conscientiousness, by *right* and *wrong;* Ideality, by the beautiful, exquisite, or perfect; Mirthfulness, by the laughable or ridiculous; Locality, by travelling; Combativeness, by danger, &c.

But mark: one faculty cannot perform the function of any other, or supply its place. Though a person having Acquisitiveness small, may make money to leave his children rich, or to show off, or to aid the poor, or to furnish the means of acquiring knowledge; yet, these motives neither excite nor enlarge Acquisitiveness; for, the first is an exercise of Philoprogenitiveness; the second, of Approbativeness; the third, of Benevolence; the fourth, of Intellect, &c. To exercise Acquisitiveness, therefore, he must make and love money *to possess and hoard*—must love property to *lay up*, and for *its own sake.* You may eat a meal, not because you *relish* it, but because a certain *hour* has come—that is, from *Time*, not Alimentiveness. Fighting desperately from motives of *honor*, and not from *love* of fighting, is no more an exercise of Combativeness or Destructiveness, than the apparent fondness, in company, of a husband and wife who cordially hate each other, is an exercise of pure connubial love.

This illustration shows, first, that the *precise nature*, or *legitimate function* of every faculty, must be known, as well as its *natural* aliment or stimulant; and, secondly, that this stimulant must be placed before the faculty so as to *excite* it, in order thereby to enlarge it.

The *first* thing to be done, then, is to obtain a knowledge of the function of every faculty, that we may know how to excite it. To impart this knowledge, we shall briefly *analyze*

* This train of remarks does not refer to the power one faculty has of bringing another faculty into action—a point to be elsewhere presented.

each faculty; and, in order to do this in the shortest and most effectual method possible, we shall point out the *adaptation* of each to its counterpart in nature, or to the end it attains in the economy of man. Thus, Philoprogenitiveness is adapted to the *infantile* condition of man; Causality, to the arrangement or laws of cause and effect; Cautiousness, to our being in a world of danger; Benevolence, to the sufferings of mankind; Alimentiveness, to the requirement and arrangement of digestion; Constructiveness, to our need of clothes, houses, and things that are *made*, &c. We know of no short-hand method of impressing indelibly, the nature and function of the faculties at all to be compared to this, united with *definition* instead of descriptions. Remembering this adaptation of a faculty to its object, is comparatively easy, and this reveals its true function.

Instead of following the arrangement of most Phrenologists, and commencing with the *propensities*, we shall analize the *Intellectual* Faculties first, and at the same time show

1. THE PHRENOLOGICAL PRINCIPLES OF CONDUCTING EDUCATION:
2. HOW TO IMPROVE EVERY KIND OF MEMORY: and
3. THE MEANS OF STRENGTHENING AND EXPANDING THE INTELLECT.

These subjects are of vast importance to each and every member of the human family, but *especially* to PARENTS and the YOUNG. To descant upon the value or utility of memory, would be superfluous. We appeal to you who are rich, if you would not gladly give your *all*, the *necessaries* of life alone excepted, for a clear and retentive memory of all you have ever seen, or heard, or known. What would not you, lawyers and physicians give, to be able, without notes, to recall, clearly and in order, every point of your evidence, every fact in your practice, every point in the authors you have ever read? Similar remarks apply to men of business, to whom a retentive memory is, if possible, still more serviceable. How often has the reader felt mortified in the extreme, and angry with himself, because he has forgotten something he intended to say or do? How great the consequent inconvenience, and delay, and even loss, which a good memory would have avoided? How

much more powerful and effective is that speaker who can dispense with notes, yet say all he wishes; and, by the aid of a clear and retentive memory, can bring to his aid thoughts and arrangements previously prepared? In short, is there any occupation in life in which nearly every kind of memory is not *most useful?* In many it is *indispensable.* We ask parents whether transmitting to their children vigorous intellects and retentive memories, is not one of the richest legacies they can leave them? and whether a poor memory, one that is treacherous to its trust, is not a sad misfortune?

Again: To be productive of pleasure, every action of our lives must be governed by *intellect*, which is only another name for experience and correct judgment. The man of feeling and impulse, is a man of sorrow and misfortune. The propensities are blind, and blindly seek gratification; whereas, intellect directs them into the paths of virtue and happiness. We grant, indeed, that the assistance of the moral faculties is also indispensable, yet without intellect, even *they* are "blind leaders of the blind;" producing all the anomalies and abominations of paganism. Aided by intellect, men accomplish much more, and that far better; doing with their heads what unintellectual men do with their hands.

And then again; how rich are the treasures of knowledge! How delightful the study of nature. "*Knowledge is power.*" Man is so constituted that to study the laws and phenomena of nature—to witness chemical, philosophical, and other experiments—to explore the bowels of the earth, and to examine the beauties, the curiosities, and the wonders of its surface—to learn lessons of infinite power and wisdom as taught by astronomy—but more especially to study *living, animated nature*—to observe its adaptations and contrivances—in short, to study *nature* in all her beauty, and variety, and perfection, constitutes a source of the highest possible gratification of which the human mind is susceptible.

The reader is now prepared to go with us, first, into the study of the intellect, at least in its elements, and, secondly, into the *means of strengthening and improving it.*

We propose now to point out the various *kinds* of memory, and the means of strengthening each, as well as of securing *mental discipline.*

The *organs* of the Intellectual Faculties, occupy the *fore head,* or that portion of the head usually uncovered by the hair; and their size may be ascertained by observing the amount of *brain* forward of a perpendicular line elevated from the most prominent portion of those bones which are forward of the ear, and run forward towards the eye, and bind the muscle with which we move the under jaw, called the zigomatic arch* This prominence is on a line with that tabular, elevated portion of the scull on which the intellectual lobe lies.

These faculties are usually divided into two classes; yet, we are satisfied that making a third class will still farther faciliate their study. The first developed of these, as well as the most important, are the organs in the middle portion of the forehead, embracing Individuality, Eventuality, and Comparison, which might be called the *knowing* organs, being the first, if not the main, channels through which a knowledge of things, especially of the phenomena and laws of things, flows into the mind. All children will be found to have a great fulness, if not marked prominence, commencing above the nose, and extending upward through the middle of the forehead, to its upper part; and, in accordance with this development, all children have an insatiable curiosity to see, *see,* SEE everything; to know all about whatever is passing; and to ask *what* is this, and *what* is that; together with a remarkably retentive memory of stories, facts, and what they have seen, heard, or read. Besides being a proof of the truth of Phrenology, this shows *how* to *educate children;* namely, by *showing them things,* rather than *books*—by exhibiting facts, and *explaining the operations and phenomena of nature.* But the force of this remark will be the more evident *after* we have analyzed these organs separately. They are

INDIVIDUALITY:

Or observation of things: curiosity to see and examine objects: examination of things as independent existences, and in their isolated capacity.

This is the *looking* faculty. Its one distinctive function is to *see things.* It asks "*what* is this, and *what* is that?" It

*This is far better than measuring from the *ears* forward which measures a portion of the *propensities.*

creates that intellectual curiosity, as well as that instinctive desire to examine and discover things, which has resulted in most of the discoveries in modern science, improvements in agricul ture, the arts, &c. It constitutes the stepping-stone, or door of entrance through which a knowledge of *things, as things*, is received into the mind, and takes cognizance of what is called the *divisibility* of matter, or that quality which allows a body to be divided and subdivided "*ad infinitum*," while each portion cut off still remains a *distinct thing*.

ADAPTATION.—On looking at any thing, say a book or pen, the *first* impression received from it is, that it is a *thing*. It is its *personality*, its *individuality*, its *thingness*, which first enters the mind. Before we can examine its properties or uses, we must know that it is a *something*. Matter is parcelled out into things without number, each of which has a separate existence of its own. Thus, who can count the sands upon the sea shore, or the leaves or twigs of the forest, or the particles of matter? And yet, each, in its very nature, has a separate existence of its own. To this necessary property of matter, therefore, this faculty is adapted.

The infant of a few hours, or at least, days old, begins to *look* at surrounding objects, to gaze, and stare, and notice. Indeed, this appears to be the first intellectual organ exercised and, during childhood and youth, it evinces this curiosity to; see, and handle every thing, to pull things apart so as to see what is inside of them, &c., seeming to be one of the strongest intellectual desires and functions of children.

This *looking* tendency of children is too strong, too universal to be mistaken, and the *result* to which it leads is equally general—equally conclusive. It says, and in language too loud, too plain to be unheard or misunderstood—the language of *nature*—that children must be taught by *observation, first and mainly*, from books, afterward and secondarily. This curiosity of children, and the extraordinary development of Individuality in them, expose the fallacy of the almost universal opinion, that they can neither learn nor know any thing till they can read and spell, and of the custom of consuming *five or more years* of the most valuable portion of their ives, upon reading and spelling. The fact is, education is *begun* at the wrong end, and continued wrong through-

out. Should we not follow the order in which their *organs* are developed? Shall we put them to studying subjects which they have not yet the powers to comprehend? As well set the blind to select colors, or the deaf to learn music.

This error is almost fatal to intellectual exercise, and of course to the development either of the intellectual organs or their faculties. Reading is arbitrary, and requires a vigorous and protracted exercise of intellect: observation is perfectly natural and easy, as much so as breathing or sleeping. Learning to read is irksome, and therefore repulsive, while observation is delightful; and all know with how much more ease and profit the mind engages in that mental study which is agreeable. Learning to read does not *interest* children, and therefore does not exercise, and hence cannot enlarge, their intellectual organs, while observation, having things SHOWN and *explained* to them, delights them beyond measure. Teach children things first, books afterwards, thereby calling the intellectual organs into powerful action, which enlarges them, and strengthens their faculties. No wonder mankind are so unintellectual. No wonder they will flock by thousands to see monkey shows, circus exhibitions, &c., but take little interest in purely scientific or intellectual matters. True, they flock to hear an eloquent speaker, because he rouses their feelings; yet, how few go to hear close *reasoning*, or see an exhibition of facts. No wonder that mankind spend most of their time, desires, &c., upon the gratification of their *feelings* and passions, and that even their religious belief and practice are mainly a matter of education or feeling. This lamentable deficiency of intellect is certainly not *constitutional*, or the fault of man's *nature;* for, as already seen, Phrenology lays down the doctrine as fundamental and universal, that intellect should direct and govern all our feelings, even the moral and religious: and that what nature *requires*, she *provides*. She requires the ascendency of the intellect, and, accordingly, *all* children have superior intellects; far better, in proportion, than adults. How much oftener will the reader see fine foreheads on children than on grown persons? But why this relative increase of organs destined by nature to guide and sway man? For the same reason that colored children have better heads than colored adults, and colored people at the North, than those at the

South: namely, because *nature* does more for them than education perfects—because they become weak from mere INACTION. The *cause* of this inaction, we have given, namely, *want of interest in their studies;* and this want of interest is because their studies are above their comprehension, and not adapted to their faculties.

We know, indeed, that we are advocating a bold innovation; that we are sapping, or rather undermining the very foundation of education; that we are demolishing, at a single stroke, an idol to which parents cling as they do to their children themselves, and on whose altar millions are sacrificed in body, and nearly all in mind—but we cannot help it; for, our data is *Phrenology*, and our inferences conclusive. From the universal fact that Individuality is the first and most prominently developed intellectual organ of children, there is no appeal; and, from our inference that, *therefore*, this organ should be brought into habitual action in them; that to *show and explain things* to them should even be *the* leading object of early education, is direct and unequivocal. That teaching them to read and spell, exercises their observing powers but little, or at least not to any extent worth naming, is self-evident. It absolutely *prevents* observation, instead of promoting it. What is there within the walls of a school house for children to see? Absolutely nothing but an occasional prank of some mischievous scholar, at which, if they see, they naturally laugh, for which they get chastised or boxed over the ears, accompanied with a "There, now, see that you keep your eyes on your book." As well chastise them for breathing, or for being hungry! Shut out from the view of objects at school, and mostly confined within doors while at home, no wonder that they lose their curiosity, and find their intellects enfeebled. Their arms, or feet, or any other physical organ, if laid up in a sling, or prevented from exercise, would also become enfeebled. At three years old, just when they require all the physical energies of their yet delicate nature for growth, they must be confined in a school house; their growth thereby stinted; and often fatal disease engendered, and all to *spoil their intellects.* True, parents mean it for the best, but that no more obviates the evil consequences, than to give them arsenic, intending to benefit them, would prevent its killing them.

But this bold, and at first apparently revolting position, is still farther established by observing the method by which the human mind arrives at all correct conclusions. Reasoning alone, without its being founded upon *observation*, cannot teach any thing. Would *reason alone* have ever discovered, or ever perfected, Phrenology? Can reason teach us, in the first instance, that a function of a muscle is motion, or of a nerve, sensation; that the eye was made to see; that heat can be obtained from trees? that water can quench thirst, and food satiate hunger? that a stone thrown into the air will fall again to the earth? Observation must always *precede* reasoning. After we have seen thousands of stones that were thrown into the air return to the earth; seen food satiate hunger, and water quench thirst, thousands of times, &c., we may then begin to reason that other stones thrown into the air, will also fall to the earth, that food in other cases will satisfy hunger, and water allay thirst, &c. The *inductive* method of studying nature, namely, by observing facts, and ascending through analogous facts up to the laws that govern them, is the *only* way to arrive at correct conclusions—the only safe method of studying any science or operation of nature, Phrenology included, or of ascertaining any truth in nature.

Now, the minds of children are only the minds of adults in embryo. The former are compelled, by an unbending law of mind, to gain all their knowledge by the same process by which the latter perfect theirs—by *observation*, followed by reason. Then let children be taught this lesson of induction as their *first* lesson, their main lesson during childhood. This lesson never falsifies; books and papers sometimes do; and thereby bias and warp their judgment, implant errors, and blind reason.

We now appeal whether we are not on *philosophical* ground, as well as phrenological—whether we are not planted on a *law of mind*, and whether education should not be made to conform to it. Is not this point self-evident? and should not education be at once *remodeled* in harmony with it? We doubt whether fifty years will pass, if twenty, before this fundamental change will be brought about. We even expect to live to see it, even though the good (?) old way is so thoroughly rivited upon the affections of parents. But let every reader ask himself what

good his books did him while a child? Let him look around, and he will doubtless find, what we have been astonished to observe, that many men having the strongest minds as well as memories, and the best business talents, do not know how to read or write. Let him ask which is preferable, book-learning, or common sense? a college learned sapling, or a strong-minded, common sense citizen who cannot read? and train his children accordingly.

Not that we would have reading, writing, and spelling neglected, but we would make them *secondary*, both as to time, and as to intrinsic importance.

The course pointed out by Phrenology, then, is simply this. Even before your child is three months old, place a variety of objects before it; take it into rooms and places which it has not yet seen; hold it often to the window to look abroad upon nature, and see things that may be passing, &c. At six months, take hold of the things shown it, and call them by name, as plate, bowl, knife, fork, spoon, table, bed, &c. At one and two years old, take it out of doors much, (which will strengthen its body as well as afford increased facilities for seeing things,) show it flowers, trees, leaves, fruit, animals, &c., in their ever-varying genera and species; and when it asks you "Pa, *what* is this?" "Ma, *what* is that?" instead of chiding them with an "Oh, dear, you pother me to death with your everlasting questions, do hush up," take pains to explain all, and even to excite their curiosity to know more. Take them daily into your fields, or gardens, or shops, and while you are procuring them the means of *physical* support and comfort, store their *minds* with useful knowledge. Even if they hinder you, rejoice; remembering that you are developing their immortal minds—a matter of *infinitely* greater importance than adorning their *persons*, or leaving them rich, &c.

As they become three and four years old, take them to the Museum: show them all the fish, birds, animals &c. Tell them all that is known about the habits, actions, and condition of each, (not all in a day, or in a year,) and provide them with books on natural history, with explanatory cuts, (what, for children to read before they have learned their letters? no, but) so that, as they clamber upon your lap, and fold their filial arms around your willing neck, you may show them these pic-

tures, and read what is said of their habits, dispositions, modes of life, &c. Show them the minerals, their diversity, colors, kinds, &c.; and then take them into the laboratory of nature, and show them the operations of the chemical and philosophical world.

Take them again into your garden; show them a pretty flower, (reader, did you ever see a child that was not extraordinarily fond of flowers?) show them its parts and the uses of of each; the calyx and its texture and location as adapted to the *protection* of the flower; the petals and their office; the stamins, and their office; the pistil, and all its other parts, with the uses and functions of each, and your child will be delighted beyond measure. The next day, show it another and different flower; point out their resemblances and differences, and you not only gratify, or rather excite and develope your child's intellectual curiosity, but also teach it to analyze, compare, classify, &c.—the first step in reasoning.

"But I do not *know* enough," says one parent. Then go and learn. Let young ladies spend less time over their toilet, music, love-tales, parties, "setting their caps," &c., so that they can learn the more, and be the better qualified to cultivate the intellects of their children. Parents are solemnly bound, in duty to their children and their God, not to *become* parents till they are qualified to *educate and govern* their children.

"But I have not the *time*," says another. Then you should not have time to *marry*. Take time first to do what is most *important*. But more hereafter on the duties of parents to educate *their own* children, and also of the qualifications requisite for this most responsible office. We will *first* show how to *educate* children, and then, how to find *time* to do it. And yet, strange inconsistency, many young people rush headlong into the marriage state, totally unqualified to train up their children, either intellectually or morally. And it is still *more* strange, that, with all the *interest* felt in this subject, and all the efforts made to improve it, we have only made matters worse; because not founded in the nature of man.

Having thus laid the *foundation* of education in *observation*, not books, we proceed to build its first story, which consists in the cultivation of

EVENTUALITY.*

Or desire to witness or make EXPERIMENTS: *to find out what* IS: *to know what* HAS *been, or to ascertain what* WILL *be: love of* KNOWLEDGE: *thirst for* INFORMATION: *desire to hear and relate* ANECDOTES: *recollection of action, phenomena, occurrences, circumstances, historical facts, the news of the day, events, &c.*

ADAPTATION.—Nature is one great theatre of *action, motion, and change.* These changes, or operations, are almost infinite in number and variety. Rivers are ever running, the tides ebbing and flowing; the seasons going and returning; vegetation springing up, arriving at maturity, or returning to decay; and all nature, whether animate or inanimate, undergoing one continual round of changes. Man, so far from being exempt from this law, is a perfect illustration of it. Instead of being placed in the midst of one monotonous *now,* one unchanging *sameness,* his heart is ever beating, blood always flowing, lungs ever in motion, and his mind (at least in its waking state) experiencing a number and variety of incidents or events never to be told; for, the very recital of them, would only double their number. Innumerable historical events have been continually transpiring from the first dawn of human existence, until now, widening and varying with the addition of every successive being to our race. To be placed in a one-condition state, in which no changes or events occur, would preclude all happiness; for, the very experiencing of pleasure or pain, or even of any mental exercise, is itself an event. Even the sciences themselves are only an enumeration of the operations, or the doings of nature. Or, in case these changes existed, if man had no primary faculty which could take cognizance of them, or remember them, nature would be a sealed book; suffering and enjoyment impossible; experience, our main guide to certain knowledge, and the best of teachers, unknown; and all the memory of the past and even of our own past existence, obliterated.

Eventuality, therefore, adapts man to his existence in a world of changes or events; lays up rich treasures of knowledge;

* In this work, we shall pay but little attention to the *order* in which authors describe the organs; but, in this portion of it, shall analyze the organs either in the order of their *natural* connextion and development, or importance, as will best present and enforce our ideas.

recalls what we have seen, heard, read, or experienced; is the main store-house of experimental knowledge; and, aids reason in teaching us what *will* be from what *has* been. The function of no intellectual faculty is more important, and the loss of none, more injurious. Its development follows closely upon that of Individuality; being one of the earliest and strongest intellectual faculties manifest in children. Without this to retain the knowledge they are hourly acquiring, they could not advance a single step in acquiring that experimental knowledge of things, the application of which is indispensable in every thing we say or do. The constitution of the human mind requires that Individuality, or a craving curiosity to *see* every thing, should be developed and exercised before reason, or any other intellectual faculty can be brought into action; and, secondly, that *Eventuality* or *memory* of things seen, and knowledge acquired, should follow next; and, that these two mental operations should constitute the main body of all our knowledge, as well as the only correct basis of all reasoning. Inferences, not drawn from *facts*, or not founded in them, are valueless. Reason without facts, is like an eye in total darkness, or rather, reasoning cannot exist without being based on facts; or, more properly, reasoning is only a *general* fact, a law which governs a given class of nature's operations. This arguing and drawing inferences independent of *facts* is not reasoning, only guessing, or surmising, or giving a therefore, without a *wherefore*, which is no guide to truth, and worse than valueless; for, like an "ignis fatuus," it only *misleads*.

These remarks, though they present the function of Eventuality in its true light, by no means do justice to its *importance*, which it is impossible for words to express. Still, they show the necessity of its cultivation in children, and that every other faculty, except observation, which is its twin-sister, must give way to its improvement. We shall next consider,

THE MEANS OF STRENGTHENING MEMORY OF EVENTS.

This can be effected *only* by calling it into *vigorous and habitual* EXERCISE; and, this must be done, particularly in children, by keeping before the mind *interesting events to be remembered.* All this can not be done in school; for, little occurs there to be remembered except their plays. A short story will best illustrate and enforce this point.

A teacher taking a little girl upon his knee, asked her if she went to school. "Yes, sir," said she. "And what do you do in school?" inquired he; "I set on a bench and say *A*," was her answer. Children from three years old and upwards, are sent to school to set on a bench and say A; or, to spell A B, ab; or, B A, ba, K E R, ker, ba-ker, &c., which they do by *rote*, just as a parrot says "pretty polly," and know just as much about it, and it does them "nearly" as much good; whereas, confining them in-doors, preventing their taking exercise, even to their nestling or moving on their seats, for which they are often punished, and also compelling them to breathe a vitiated atmosphere, does them a thousand fold more harm than saying *A* does them good. Strange that parents and teachers have so long violated this leading principle of intellectual culture, and no wonder that so many are consequently cursed with treacherous memories. Swing up the arm or foot of a child six or more hours daily, for years, and punish it for moving it, and see if it does not become as feeble as the memory of most persons; and, for precisely the same reason—INACTION.

In addition to this, children are required to remember what does not at all interest them. Of what interest to them is the calling of a certain shape by A; of another, by B., &c.; or that a b spell ab? Just the same that "pretty polly" is to the parrot, and for the same reason. But only tell them a story, or just show and explain passing things to them, and they are instantly electrified with interest. Their attention is riveted, and their *memory* of the story, or of the thing seen, is powerfully excited, and the *organ* of Eventuality exercised, and thereby enlarged.

Do you ask, then, what course of early education *Phrenology* points out? We answer: *Show them things, and what things do. Tell them stories, and exhibit to them the operations of nature* FIRST; teach them to read and spell *afterward.*

Are you a mother, or a nurse? Have you never seen children, opening their eyes with the dawn of day, plead "mother, tell me a story,"—"please, mother, *do* tell me a story"? And have you never heard the impatient answer, "O hush; I've told you all the stories I know"? We know nothing that will stop a child's crying, quicker than telling it a story. We know of

no mode equally delightful to them, and, I might add, equally *profitable.*

There is a vast amount of common sense and human nature in the Bible. To say nothing of its authenticity, how perfectly it harmonizes with this principle, when it directs the children of Israel "to tell the Lord's doings to their children, and their childrens' children, and they again to theirs, by the way-side, and by the fire-side, when you lay down, and when you rise up." "Write them upon the doors," &c., that they may be a perpetual token of remembrance, &c. In other words: Tell your children, your grand-children, and your great grand-children, the story of God's dealings with the children of Israel; their sojourn in Egypt; their departure; their wanderings in the desert; their rebellions, and all the incidents connected with Jewish history. The tenacious adherence of this nation to their ancient customs, renders it highly probable that this injunction is followed more or less to this day; and, accordingly, we have *invariably* found Eventuality surprisingly large in the Jews; larger than in any other class we examine. It is probably not too much to add, that our best oriental and historical scholars are Jews. From what we have seen of them in this respect, we unhesitatingly assert, that they far exceed any other people. But of this the reader can judge for himself. What history equals that of Josephus for accuracy or minuteness of detail? And is not the Bible, considered merely as a history, characterized for the same qualities?

Again: The North American Indians perpetuate their histories in the memories of the rising race. The old grand-father, too feeble to wield the tomahawk, or chase the stag, takes his little grand-son upon his knee, and recounts to him, with a minuteness and accuracy of which we can form no idea, the battles he has fought, the enemies he has killed, and the manner of killing them, his journeys and every little circumstance connected therewith, even to the starting of a deer, or the flying of an owl; as well as the looks of the country, the mountains crossed, and rivers forded, and their windings, &c. A specimen of their astonishing powers of recollecting and narrating, is to be found in the life of Blackhawk, dictated by him to an interpreter after his first visit to this country, some of which

was extracted into the Journal, Vol. I, No. 2. That article the writer prepared; and, in looking over the work for selections to illustrate his developments, we were surprised at the perspicuity and minuteness of details of his story. Beginning back at the time when his tribe inhabited Montreal, he told those prophetic revelations which preceded their removal, and all the incidents of their successive journeys as the whites drove them back, and still farther back: the particulars of his joining Tecumseh in fighting against Gen. Harrison: the details of the war in which he was taken: the injustice of the whites: his travels through the United States: whom he saw, and what was said on various occasions, &c., &c., with a detailed precision which is rarely if ever found in our own race, and that at the age of 70. We hazard nothing in saying that the Indians know more of their national history than the Anglo-Saxons do of theirs; because, the former tell it to their children in the form of *stories*, while the latter put it in their libraries, and teach their children to "set on a bench and say A." Let the two but be *united*—the very course we propose to pursue—and the attainments of our children would doubtless be incredible, far exceeding any thing now known.

Let every reader ask himself whether he does not remember the incidents and stories of childhood with a clearness and minuteness with which his present memory bears no comparison? But *why* this weakening of this kind of memory? Because you sat "on a bench and said A"; that is, because your early education repressed instead of exciting Eventuality; so that its inaction diminished it, and *not* because the constitution of man requires it to become enfeebled by age. You had nothing to remember, and therefore remembered nothing. And if you wish to *improve* your memory, *go to remembering;* for, the more you *try* to remember, the more you *do* remember, and the *more* you remember, the *better* you are able to remember. It is a mistaken notion that the more you charge your memory with, the less you remember. The *reverse* is the fact, unless other things confuse you, and wear out your brain. Ask our post office clerks if they do not find their memories of names, faces, changes ordered, &c., to *improve* instead of be coming weaker. Many a lesson of this character have my

travels taught me. In South-Boston, I requested several omnibus drivers to do errands in Boston, bring over one thing and another, and noticed that they never took a memorandum of the errand, and never made a mistake. They often do twenty errands at a trip, and do not put down a single one on paper; yet, never make a mistake. The second time I went to the post-office in Boston, the clerk, without looking over the letters, told me I had none. I requested him to look. He said it was of no use, still, to satisfy me, he looked but found none; and, scores of times, he told me that there was or there was not any thing for me, the moment he saw my face, without my being able to detect a single mistake. If he said yes, he found something; if no, nothing. Must it not require a most extraordinary act of memory to tell whether any of the vast number of mails arriving daily, brought a letter for me or not, or for any of the thousands that were constantly applying, whether strangers, as I was, or citizens? Yet, doubtless, every reader of these pages, might have had, perhaps can yet obtain, as good a memory about any thing, if not every thing, as this clerk has. My own experience on this point is, perhaps, worth relating. From the first, I have practised giving *written* descriptions of character along with charts; and, when a company, or when several were examined in succession, being compelled to postpone the writing till I had more leisure, I charged my mind with two things; first, the size of every organ in each person examined; and, secondly, with *what* I *said* about each, until I could write them out, which often was not till days afterward, and till hundreds in the mean time had been examined. I sometimes took memoranda at the time, but would not look at them till I had written what I remembered, and have seldom had occasion to add any thing. When I did not charge my mind with the examination, it passed out of my mind as the person left the room, unless it was worthy of being remembered, or unless my brain was overcome with fatigue. To say that my memory, not only of examinations but, also of places, faces, and the size of organs, has doubled ten times, is to fall short of the fact. It is rare that a circumstance, though trifling in itself, is mentioned as connected with my visit to a certain place, or family, which is not remem-

bered, the only difficulty being in remembering *names*—a point to which, till recently, I never attended; and now, only slightly. In Boston, having occasion to order an article by packet from Philadelphia, on taking out my pencil to write the name of the ship and captain, its leads were out, and no means of making the memoranda were at hand. Applying this principle, I thought it over and over and over again, till "The Robt. Waln," Capt. Martin, was indelibly impressed upon my recollection. In visiting families—and I often have appointments every evening for three weeks ahead—I never allow myself to note down either name, date, street, number, or hour, or the number to be examined, and *all* from *practising* the principle I am urging. Nor would the gold of the world, if such a thing were possible, buy of me the mere *improvement* in the various kinds of memory effected by this course. Let the *reader* practise it, and in five years, he, too, will say the same. Nay, more. Doubtless every reader may double the power of any kind, or of all kinds, of memory *in six months*, and improve it fifty per cent in one month. At least, it is worth the *trial*—which is only the vigorous and habitual *exercise* of your mind upon what you wish to remember; a simple remedy, but a glorious result.

Following out this principle, I seldom lecture from notes, but from memory alone; though never commit, in which, not having practised, I do not excel. My work on Phrenology was composed, not from notes, but from recollecting the heads and characters of those described in it; and, I could fill ten more just such volumes from the same source, without departing one iota from what was said at the examination, except omitting unimportant parts.

These remarks about myself, which might be greatly extended, are not prompted by a boastful spirit; for, I claim no great credit for doing what my business *compels* me to do; but, by a desire to present the reader with a scene from real life as a sample of the means of exercising, and thereby improving, the powers of memory, especially, of *Eventuality*, as well as to illustrate the great law on which the education of the opening mind should be conducted. I will just add, that the study of Phrenology far exceeds all the mental exercises I ever experienced or read of, for disciplining the memory, and improving

the mind. Its study is, therefore, cordially recommended not only on account of the glorious truths and rich mines of thought it opens, but merely as a means of *strengthening the memory*, and *improving the mind*. But more of this after I have analyzed the other intellectual faculties.

Were other illustrations of the extent to which memory may be carried by exercising it, necessary, I might state cases related to me in my practice. Mr. White, dentist, Tenth street, near George, Philadelphia, informs me that his wife's uncle, who resides near Reading, Pa., was unable to read, or write, or keep books, and yet, that he usually did business to the amount of hundreds of thousands of dollars, annually, without ever having been known to make a mistake as to the amount due from him or to him, till after he became intemperate.

After giving this lecture in Clinton Hall, in February last, a gentleman stated to me that he knew an extensive drover in the New York market, who could not read, write, or keep books; yet, who would sell out a drove of hundreds of cattle, one to one man, another to another, a half to a third, and a quarter to another, and yet, keep every one in his head, their weight and price, and amount due from each; and, said he "I never knew a single mistake; and, what is more, he will do the same of droves sold years ago. He stated it as his full conviction, that he never forgot a single hoof he ever sold, or its weight, or price, or purchaser. If the reader thinks that this draws too largely upon his marvellousness, I reply, wait a little; for, you may yet see collateral evidence of its truth. I give it as my full and deliberate opinion, that the mind of man is so constituted as to be able, if properly disciplined, and if the body be kept in the right state, to *retain* EVERY thing it ever received. Unquestionably, our memories are originally constituted to be *fact tight*—to let *no event of our lives*, NOTHING ever *seen*, *heard*, or *read*, escape us, but to recall EVERY thing committed to its trust. Look at the astonishingly retentive memories of children. And yet their brains are still soft and immature. What, then, *might* the memory of *adults* become? As much stronger, more minute, and tenacious, as their brains are capable of becoming more solid and vigorous. But modern education *weakens*, instead of improving the memory; first, by relaxing, weakening, and almost destroying the tone and

power of the body, and thereby the vigor of the organs in the *base* of the brain, including the perceptive or knowing organs,* and, secondly, by giving them, especially Eventuality little stimulus, little food, so that it becomes enfeebled by sheer starvation and inaction. It has little to do, and therefore does not do that little; carying out the principle that "From him that hath not, shall be taken away *even that he hath.*"

A similar fact, but one still more in point, occurs in the case of Mr. McGrugan, of Milton, Pa. In 1836, we examined his head, and found all the intellectual organs amply developed. We well remember the bold prominences of Causality, as well as the perpendicular ridge, somewhat resembling a part of a pipe stem, which we observed in the centre of the forehead, which indicates the recent enlargement of this organ. In our visit to Chambersburg, Pa., in 1839, Mr. McGrugan, waited on us to request an hour's interview. He then expressed himself in the strongest terms as to the extent to which memory was capable of being improved, expressing the strongest desire to be, what his age and circumstances prevented his becoming, a public lecturer, simply that he might enforce upon young men the importance of memory, and the means of cultivating it.

He said that at twenty-five, his memory was most miserable. If he went from his house to his shop for any thing, he usually forgot what he went for. If he went to town, he forgot most of his errands. He could not recollect any thing he read or heard, neither names, nor words, nor dates, nor facts. At length he resolved no longer to submit to this forgetfulness, but to discipline his mind, in doing which he adopted the following method. When he wanted any thing from his house, he would think over and over in his mind what it was he wanted, thus exercising his Eventuality upon it, and thereby remembered it. He would read a passage and re-read it, and then think it over and over, or in phrenological language, would exercise his *Eventuality* upon it, strongly impressing it upon that faculty. He would then lay by his book, and still revolve it in his mind, and then read another passage, and go through the same process in reference to both together, and so

* The proof and explanation of the relative or reciprocal influences between the *body* and the *base* of the brain, will be given hereafter.

on with the entire book; thus constantly exercising his eventuality. After a little, he could keep the history of two books, and then of three, and four, each clearly before his mind at once, and carry them along in his memory as he read them.

But he found he forgot *names*. He pursued the same course in reference to this kind of memory, and thus improved it also. But he found that he forgot *where* on the page he left off, and was obliged to turn down a leaf. This would not do. He each time impressed upon his locality *where* he left off, and that in each book, and shortly found *this* kind of memory likewise improved. He also exercised his Causality in philosophizing upon what he read. Now, if Phrenology be true, his organs of Eventuality, Locality, Language, &c., must have been small, but they are now all remarkably large, showing their increase by exercise, and he informed me that now, at sixty years of age, his mind is more vigorous, and his memory more retentive, than ever before—that it still goes on improving, though at his age all kinds of memory, are usually feeble, and declining.

Let it be observed, that he took the very method for the increase of organs pointed out by Phrenology, namely, the *vigorous exercise* of the very powers he wished to improve. He is acknowledged to have the best memory, and to be the best informed man in central Pennsylvania. Lawyers, doctors, and the literati from all that section, go to him to obtain information on doubtful points, and deem it a great privilege to hear him talk, or gather that information which his extensive reading and perfectly retentive memory enables him to impart. Let those who have poor memories, go and do likewise; for, your memory, equally with his, is susceptible of improvement, and probably to as great a degree, provided your constitution is unimpaired, health good, and regimen proper.

This case furnishes an additional fact to show the increase of the organs; for, if Phrenology be true, his Eventuality must have been small at twenty-five; but it has now become large, from its *exercise*.

Elihu Burritt, the learned blacksmith, is another sample of what man's mind is capable of accomplishing. [See Journal, Vol. III, p, 27.]

Parentage unquestionably contributes its quota to this result, but education must *perfect* it. *All* children have prodigious Eventuality, and all adults *might* have it, if they would but tax their memories. If Mr. Burritt's case does not prove that all can be Burritt's, Mr. McGrugan's goes far to favor that all may be McGrugans. Reader, only try the experiment as we direct, and I will stand sponsor for any *failure* except *your* failure to persevere in *trying* it—you giving credit in case of a successful issue.

I might sustain the point I am now urging by almost any number and variety of similar facts, and afford additional encouragement to those who are disposed to try it, but if what has already been said is not abundantly sufficient, both to prove our position, and to encourage, especially the young, to adopt the simple and easy course pointed out, additional labor would be in vain. Still, that he that runs may read, and that no stone may be left unturned in order to elevate the *intellectual* character and standing of man, I will add a few directions, as samples of what is to be done, and how to do it.

When you retire at night, devote fifteen minutes a review of the events, sayings, and transactions of each day. Thus: I rose (Eventuality) this morning at six o'clock, (Time,) went to such places, (Eventuality, Locality,) and did such and such things (Eventuality) before breakfast, (Time,) which I ate a seven o'clock, (Time,) said and heard such and such things at breakfast, (here recall the subject-matter of conversation,) went about such a business, (Eventuality,) saw Mr. —, (Form,) who said such and such things, (Eventuality.) This angered me, and I said thus and so in reply, (but ought not to have lost my temper, and will avoid it in future,) and so on to the end of the day. Every Saturday evening, extend these reviews of the past through the week, and then often recall the events of childhood and youth. This course, besides disciplining your memories, teaches you one of the very best lessons you can possibly learn. It will enable you to see your past errors, and to avoid them for the future—will give you a just estimate of your doings, sayings, &c., and, though it may drop a tear of penitence over the wrong in feeling, conduct, expression, &c., yet it will be the most effective instrument of reform and self-

control you can employ; because, the pain felt in contemplating the wrong, and the pleasure connected with a review of the good and the virtuous, will instinctively lead you to avoid the former and practice the latter; and for precisely the same reason that a burnt child keeps out of the fire, namely, because it pained him, or that a happy man seeks again and again the *cause* of that happiness. Does not this course commend itself to the good sense of the reader, at least enough to secure a trial?

This same course should be pursued by parents and teachers in regard to children. Ask them what they have seen to-day, and when they tell you one or more things, ask them what else, and then what else, and get them to tell over all the *particulars* of the doings of the day, which will cultivate their *Language* as well as Eventuality. Then induce them to tell over what they saw at such and such times that you may name; to tell you the story you told them about Franklin, or Washington, or the Revolution, &c., which may have before been told them. Let the elder children tell stories to the younger, and let the aged and doting grand-father tell them the habits of men when he was a boy, and recount to them the scenes of his youth, &c.

Closely connected with this subject, is one of *great* importance, namely, having the recollections of childhood and youth all *pleasurable*. Man not only recalls the past, but he *enjoys* or *suffers* from those recollections. A single dark spot, a single act of our lives that leaves a moral stain upon its recollection, is ever afterwards capable of piercing us with the keenest of pangs, while the recollection of what is *pleasurable*, throws a bright beam of pleasure upon us every time it is recalled, equal to that experienced in the event itself, which thus doubles the pleasure connected with the event a thousand times. Hence, it is *immensely* important that *all* our recollections should be *pleasurable*—that childhood and youth should be made, and should render themselves as *happy* as possible; which will greatly facilitate and induce that exercise, and consequent improvement, in the memory we are urging.

I now put it to the common sense of every reflecting mind whether the course thus far pointed out, does not commend itself to every reflecting mind as infinitely superior to the present method of educating children? whether it does not account

for the miserably poor memories of most adults by ascribing it to their not being *exercised?* whether this not exercising the memory is not caused by children's want of *interest* in the common studies of the schools? and whether this course is not in perfect harmony with the nature, laws, and action of mind, particularly in children? If so, let it be adopted.

Another important suggestion, growing out of this analysis of Eventuality is, *showing them experiments*, chemical, philosophical, &c., &c. "*What!*" exclaims an astounded reader, "teach children chemistry, natural philosophy, natural history, &c., and that before they are taught to *read?* I thought you were a crazy simpleton before, but now I *know* you are." Wait, reader, till we see whether this craziness and utter folly do not appertain to the *present* course of early education, instead of to this *phrenological* course. After showing the child things, flowers, animals, the contents of museums, &c., as pointed out under the head of Individuality, and telling them stories, and exciting their Eventuality, as just described, show them the changes and phenomena of matter. Show them the whole process of vegetation, from planting the seed in the ground, up through all of its changes of swelling, sprouting, taking root, shooting forth out of the ground, becoming a thriving plant or vegetable, budding, blossoming, shedding its blossoms, and producing seed like that from which it sprung. And what if, in thus examining these most interesting changes, they do pull up now and then a blade of corn, or kernel of wheat, or a valuable plant, will not the pleasure and instruction thereby afforded them, repay the loss a thousand fold? Show them how acorns produce oaks; peach or cherry *stones*, peach or cherry *trees*, which again produce peaches or cherries, and so of other trees and things. Then put a spoonful of vinegar into a glass of water, and stir in ashes or pearlash, or any other alkali, and watch their surprise and delight at seeing it foam and froth, perhaps run over. Then explain to them how pearlash is made by draining water through lye, boiling down the lye till it becomes thick and hard, then melting it, and at last refining it; and, then show them how taking this alkali in the form of pearlash, or even by drinking water into which ashes have been put, is calculated to cleanse a sour stomach by the two combining, and neutralizing each other.

Then show them how a sour stomach is produced. After explaining the position, looks, and office of the stomach,* tell them that eating too much, or more than the stomach can digest, makes this food lie in it so long that it begins to ferment or sour, like cider or beer, which disorders the blood, and causes sickness unless removed; that this souring creates a gas, which may often be seen blubbering up and the bubbles breaking; that, in distilling grain into alcoholic drinks, the grain is first fermented, and this gas converted into alcohol; that it is this same gas which sometimes bursts a barrel of new cider or bottle of beer that is working, and makes the cork fly out with a noise or explosion similar to the report of a gun, and which causes the *frothing* of new beer, cider, champagne, &c.

Then take a bladder, partly filled with air; let your child hold it near the fire and see it swell, and carry it back and see it shrink, carry it up and see it swell, &c., a few times, and he will be delighted to observe that heating it makes it swell up, and that cold shrinks it. Then let him take a vial or bottle, and fill it so that another drop will make it run over, and set it down before the fire; and, as it becomes hot, it runs over; as it becomes cool, it settles down. Then, that this expanding of the water is what makes water boil over a hot fire; the bottom, which is hottest, expands, and this causes it to rise. A few similar experiments will teach your child one great truth; the law of nature, that heat expands, and cold contracts, all bodies; that, therefore, a clock or watch goes slower in warm weather than in cold, because the pendulum is longer; that a red-hot tire, put on to a wagon-wheel, may be comparatively loose; but as it cools, becomes very tight, so as to make the wheel strong, &c. And remember, that when you have taught them this law of nature, you have taught them a lesson they will never forget; a lesson they will have occasion almost daily to use, a principle with which they will instinctively associate

* Few children, even of twelve years old, know that they have a stomach. They know that fowls have gizzards, and cattle, hogs, &c., paunches, (which some people relish,) because they have seen them butchered; yet, do not know that *they* also have a digesting apparatus for disposing of the food daily consumed.

every like fact they ever learn, which, without this association would soon be forgotten; a lesson in *reasoning* or the first, complete, and the most important intellectual process, namely, that of *inductive* reasoning, or reasoning from *facts* to the laws that govern them.

But, before completing the remarks on this head, I must analyze other organs in order to show how to train them all to *combined* action, and proceed with

COMPARISON:

Or, discovering the unknown from its RESEMBLANCE *to the known; reasoning from parallel cases, or from a collection of similar facts up to the laws or first principles that govern them: detecting error from its opposition to* FACTS, *or from its incongruity with truth: ability and disposition to* CLASSIFY *phenomena and things: perceiving and applying the principles of* ANALOGY, *or the* RESEMBLANCE *of things: ability to generalize, compare, discriminate, &c.: critical acumen: inductive reasoning: power of explaining and illustrating: disposition to use comparisons, suppose similar cases, employ similes, metaphors, figures of speech, &c.*

ADAPTATION. The principles of analogy and resemblance, run throughout the whole range of creation. All human beings closely resemble each other. All have a nose, mouth, brain, heart, eyes, bones, muscles, hands, feet, &c., and in much the same relative position. The resemblance of every animal to every other animal of its own species, and indeed to *all* other animals, man included, is very striking: and so of the balance of creation. This resemblance of things teaches us a vast proportion of all we know. Thus, seated around a winter's fire, eating an apple, we feel as sure that it grew on an apple-tree instead of in the ground, or in an animal, like an egg, as that we are eating it, and yet we did not *see* it growing there. If fire be brought in contact with flesh, we know beforehand that it will burn, and cause pain instead of pleasure, and pain of a certain kind. But *how* do we know this? Because this fire and flesh are similar to all other fire and flesh, and Comparison tells Eventuality that the effect of bringing the two in contact will be *like* the effect experienced a thousand times before by applying fire to the flesh. On seeing a stranger, of whose habits we know nothing, we infer from his

similarity to other human beings, that he requires food, sleep, and breath, and that he cannot eat iron or arsenic, that he has lungs, a heart, stomach, &c., and that they are in a certain part of his body, &c. How do we know without trying it, that a certain tree, cut up and put on a fire, will burn, throw out heat, and produce ashes and smoke; that a given stone thrown into the air, will fall to the earth; that water will run down an inclined plane; that cutting off a sheep's head will kill it; that ice is cold and fire hot; that animals will bring forth, each after its kind; that food will nourish, earthenware break, and a sharp edge cut; that a fish grew in the water, and that a bird cannot live long immersed in that element? The faculty of Comparison teaches us, not only these, but thousands of other things of every day occurrence, about which we know nothing except from their resemblance to other things which we have known to be what we infer of these. This is doubtless one of the most valuable, if not decidedly the *most* valuable, of the Intellectual Faculties. These illustrations show how vast the amount of knowledge communicated by it; and, consequently, how important its proper cultivation.

It should be added, that, there are doubtless two faculties of Comparison: that the lower acts with the perceptive faculties, comparing physical things, and thereby teaches us physical les sons; and that the upper acts with the *moral* faculties, comparing ideas, analyzing, discriminating, criticising, and giving logical acumen. There are, also, in all probability, two organs of Eventuality; the inside one for remembering the scenes and associations of childhood and youth; the outside organ for recollecting business transactions, and the occurrences of the day, week, year, and latter part of life; and, two of Individuality: the inner for recollecting things lately seen; the outer, for noticing and remembering things seen in childhood.

Having shown that this faculty lies at the very basis of much of our knowledge, it should be added, that it is one of the first intellectual organs developed in children, following closely after that of Individuality and Eventuality, and is indispensable in order to complete almost every mental operation. To children it is still more important. Without it, they would

learn very little, and that very slowly; but, by its aid, they soon learn to generalize and compare, instinctively inferring when they see what one thing will do, that another thing just like it, will do the same. Page forty contains a principle which applies here with great force; namely, the *inductive* method of reasoning; that is, inferring from a multitude of *similar facts* that all *like* facts are governed by the same law, and may, therefore, be safely relied upon. This is the best, and almost the *only*, way of arriving at conclusions which are certain. This method of reasoning is natural and simple, and adapted to the mind of man, and *particularly* to the intellects of *children*. Through this channel, therefore, instruction should be poured into their inquiring minds. Every teacher, every one at all conversant with the minds of children, will bear witness how readily they comprehend a comparison, and how forcibly an illustration strikes them. Then cultivate this faculty, and teach them to draw *correct* inferences from this source. In short, teach them the *inductive* method of reasoning from *facts* up to their principles. After showing them that heat expands the air in the bladder, the water in the bottle, and a few like experiments, as mentioned under the head of Eventuality, their Comparison will draw the inference that heat will enlarge and cold diminish, *all* bodies. They are now taught one *principle*, one *law of nature*, one *general* fact which they will ever after apply, and you should aid them in applying it, to a great number and variety of the operations of nature and art. Tell them that water is expanded by heat into steam, which rushes out of the tea-kettle when the water boils; that it is this principle of expansion which imparts the power to the wheels of the steam-boat and thereby drives it through the water against wind and current, and carries all machinery propelled by steam; that heating the air in the stove rarefies or enlarges it, and this produces the draught; that this same principle makes the wind blow, and so of its other applications.

Then take another class of facts, and bring out its principle; then another, and another, and another still, keeping their expanding and delighted minds full of subject matter for observation and contemplation; and, always afterward, whenever they see a fact coming under any of these principles, they will

remember it; and, when they wish to attain a certain end, they will operate by means of them.

This is the organ through which explanations mainly enter the mind; and hence, great pains should be taken to explain every thing, not to get rid of your children, but to *instruct* them. They ask a great many questions, which are either *what what* questions, or *why why* questions, and every opportunity of conveying instruction thereby afforded, should be embraced. I well remember once asking my father, who was husking corn, *why* a certain ear, the rows on which were irregular, looked so different from all the rest? "Because it is not *rowed*," was his answer. Over this answer I thought, and thought, and thought what he could mean, and finally concluded that, as he went through the cornfields to *hoe* the corn, so he probably went through to *row* it, but skipped this ear. Now see how excellent an opportunity this question afforded for teaching me the important lesson that nature showed economy in every thing—that by the cobs being round, more corn could grow in a given space than in any other shape; that the kernels were all placed in rows so that all might be filled up; for, if they were not in rows, some kernels would be too much crowded, and in other places there would be nothing; and, that the human body was contrived so as to bring the greatest possible number and amount of functions into the smallest possible space; and so of all the other operations of nature. Every day and hour the continual string of questions asked by children, affords opportunities to explain some important truth, or teach some valuable lesson; and yet, strange inconsistency! many parents become angry at their children for asking so many questions, or else turn them off with those answers that are not satisfactory.* This questioning is as important to the intellectual growth of children, as the root is to a tree or plant; and yet, wonderful to tell, in our present system of education,

*An unusually inquisitive, that is, uncommonly smart child, once asked her grandmother "what bricks were made out of;" and was told "of sand and clay." "Then what makes them red?" asked the child; "O do hold your tongue. Don't ask so many questions and no one will know you are a fool. Little girls should be *seen* not heard," was the reply. The grandmother could not tell why, and, therefore, became angry at the child for asking.

no provision is made for answering these questions. What questions can or do children ask at school? Almost none. Now we appeal whether answering these questions does not do them far more good than learning to read? Does it not exercise, and thereby improve, their intellects far more? for, let it never be forgotten that in order to *enlarge* the intellectual organs, they *must* be *exercised*, and what *interests*, *excites*, and thereby *enlarges* them; but what does not interest, does not excite, or enlarge, or benefit them. Looking at the present method of education through the optics of Phrenology, or through the principles already pointed out, which is the only correct light in which it *can* be viewed, I really do not see how it is possible to devise a more effectual method of deadening the action of the brain, or *weakening*, instead of strengthening, the faculties of the mind; for, surely, no course would be less interesting, aye, more, none could scarcely be more disagreeable to them, and therefore, (not less beneficial, which would imply some good, but) more *injurious;* for, the present course is beyond all question *decidedly detrimental.* With my present knowledge of the subject, I boldly avow my preference to remain *untaught*, than to be sent to our present common schools. They are injuries instead of blessings, and Phrenology will soon sweep them into oblivion, or else effectually remodel them. See if it does not, and that speedily.

We have other remarks belonging more appropriately to Comparison than to any other faculty; yet, as education, to be successful, must combine the exercise of *all* the intellectual faculties, we can present them much better after we have analyzed.

CAUSALITY;

Or power of perceiving and employing the principles of causation: ability to discover and apply first principles, and trace out the relations existing between causes and effects: desire to know the WHY *and* WHEREFORE *of things: ability to* REASON, *or draw conclusions from given premises: to plan, invent, contrive, adapt means to ends, take the advantage of circumstances, create resources, apply power most advantageously, and make the head save the hands: to predict the results of given measures, and tell what* WILL *be from what* HAS *been: sagacity: the leading element of common sense: the* THEREFORE *and* WHEREFORE *faculty.*

ADAPTATION. Every effect must have its cause, and every cause produces an effect. *Like* cause also produces *like* effects, and all the operations of nature are governed by laws of cause and effect. It is as natural for man to ask "why," as to breathe or eat. *Why* this desire to *know* why? What *causes* this disposition to investigate causes? Whence our *idea* of causation, and our disposition to employ certain means in order to attain given ends? Laws of causation govern the phenomena of nature; and, this faculty in man adapts him to them. Without them in nature, all would be chance and hap-hazard. Man could accomplish nothing, could rely upon nothing. Without this faculty in man, though the operations of nature would go regularly forward, and effects succeed causes, yet *to man* they would be a sealed book; a dead letter, and as though they were not. But, with this arrangement of nature on the one hand, and this faculty in man adapted to it on the other, man can attain innumerable ends otherwise unattainable, procure innumerable comforts otherwise beyond his reach, and even force the elements into his service. Still more, he can penetrate the otherwise hidden operations of nature, ascertain their fountain head and procuring causes; and, aided by the moral faculties, can comprehend those *moral* causes which govern the department of mind, and apply them to the production of happiness.

This train of remarks, while it expounds the office of this faculty, also exhibits its value, and at the same time shows how immensely important its proper cultivation and habitual exercise in childhood and youth.

Our next inquiry asks *how*—by what *means*—so important a faculty can be cultivated and improved? We have already seen that to *improve* any faculty, its proper *stimulus* must be presented; and, to do this, its *nature* and *adaptation* must be ascertained, and that placed before it to which it is adapted. The *causes* and *laws* of things being adapted to this faculty, we must place *them* before the child's mind. This, their questions from three years old and upward, enable us to do with great facility and effect. "Ma, what *makes* this? Pa, what is this *for?* and like questions are pouring from their mouths a continual *stream*, enabling parents to pour *as* continual a stream *into* their minds. Let children be much with their pa-

rents, and be allowed and encouraged freely to ask all the questions that occur to them; and let parents, in giving these answers, give the *true* cause or *none*. Many parents—sometimes because they do not know how to answer their questions, and sometimes to quiz them, but moe roften because the minds of the parents themselves are biased by wrong principles, which perverts and warps all their intellectual operations —teach their children to *believe* instead of think; or to think erroneously by teaching them to think from incorrect data, which, warps their Causality, from the very first. Children should be taught to do their *own* thinking, and to answer their own questions. They asked a question yesterday, to which a correct answer was given; to-day they ask another, and receive a correct answer, and to-morrow, ask a third, the answer to which, or the *principle* involved, was explained yesterday. Recall these answers, and tell them to put that and that together, and judge for themselves as to the results about which they inquire. In other words, give them the *data*, and then let them think, judge, and act for themselves.

Little fear need be entertained about their coming to *incorrect* conclusions; for, Causality, and all the other intellectual faculties, act by *intuition*, and, unbiased, will always come to *correct* conclusions. That same intuition, or instinct, or what you please, which makes the child breathe, and nurse, and sleep, also governs the actions of all its faculties, the intellectual included. It teaches Individuality to observe, and observe *correctly*; Eventuality, to remember action; Form, to know whether a thing is found, square, conical, &c., and to recollect the *shape* of things; Size, to tell them correctly the bulk of things, their distance, &c.; Weight, to resist and counteract the laws of gravity; Comparison, to generalize; and Causality, to reason and adapt means to ends. All that Causality requires in order to come to *correct* conclusions, is to have the right *data* placed before it. Far too many parents do the thinking for their children while they are young, and this makes them get it done *out*, when they are older. This explains the *decrease* of Causality in children. Has the reader never observed the fine, noble foreheads of children, their height, their expanse, and those marked protuberances at the sides of

the upper parts of their foreheads which characterize their intellectual developments? Cast your eye over the foreheads of a hundred children, and then of a hundred adults, and if you do not see a marked superiority of the former over the latter in proportion, then you do not see what I am daily pained to observe—pained, not because children have such fine heads, but, because *adults* have so *poor* ones. I do not hesitate to stake my reputation on the opinion that the difference is from one-fourth to one-half in *favor* of children, and *against* adults; whereas, the difference *should* be in *favor* of ADULTS; because the law of our nature, as explained on pp. 31–33, shows that the *mental* temperament and faculties are destined to increase in a far greater ratio than the physical powers, or organs of the feelings.

The intellectual *capacities* of children are also far superior in proportion, to those of adults. Observe their remarks. Are they not often full of pith, and meaning, and idea? Do they not often expose the absurdity of the dogmas that are taught them? Do they not discover a sagacity, a penetration, a quickness, an intuitive comprehension of things, not found in them when grown up? And do they not discover a power of contrivance altogether astonishing? I was never more surprised than on seeing a little girl, not yet eighteen months old, praise her aunt in order to obtain from her, sugar and other favors. When she said "pretty aunt Charlotte," or "aunt Charlotte your dress is pretty," aunt Charlotte knew that she was coaxing her, and working around upon her blind side in order to get a favor. When a little over two years old, as the family, in connexion with her uncle, were eating almonds and raisins in the evening, she awoke, and knowing that it was useless to ask father, or mother, or aunt for them, went to her uncle, whom she did not like any too well, and laying her head back affectionately upon his lap, said, in a very coaxing tone and manner, "pretty uncle Lorenzo. Uncle Lorenzo is good." The next morning her mother asked her "what made uncle L. pretty?" "Because almonds and raisins is pretty," was her artless reply. To administer praise as a means of obtaining favors, without ever having been taught to do so, and that at eighteen months old, certainly required an exer

cise of Causality in laying a deep, appropriate plan to bring about a result, in a degree rarely attributed to children. This is not probably an extraordinary exercise of Intellect in a child of that age. Doubtless most children exhibit nearly as much. I assert, and I stake my reputation for correct observation on the opinion, not only that, as already expressed, the intellectual *organs* of children are far better developed, in proportion, than those of adults, but also on the concomitant opinion, that their *ideas*, their powers of intellect, of penetration, sagacity, comprehension, inquisitiveness, intellectual curiosity, and the adaptation of means to ends, are also proportionally far supe rior to those of adults. For the correctness of these opinions, an appeal is made to the observation of all who are conversant with the intellectual developments or manifestations of children under eight years of age.

How is this? What *causes* it? Is it *natural?* "God forbid!" It is *un*natural. It is because the intellects of children, and especially their reasoning powers, are shut up in a school house, are pinned fast to a bench, are deadened over A and *baker*, are stifled by the inability or refusal of parents to answer their inquiring minds, and feed and fill their opening intellects. Their brain withers and shrivels up, and their blood stagnates, over those studies upon which they are placed, or else a fatal dislike of books is engendered by the dislike or punishment of the teacher, by parents whipping them to school and from play, and by the almost total inadaptation of the present system of common school education to the opening minds of children. If Phrenology be true, and if, as such, it reveals the true principles of conducting the intellectual education of children, I hazard nothing in pronouncing this system directly at variance, in almost every particular, with both the laws of mind in general, and the developments of the minds of children in particular. Phrenology shows conclusively that the organs should be cultivated and exercised *in the order* of their development; that the organs first developed are Indi viduality, Eventuality, and Comparison; that Causality, Form, and Locality, follow suit, and that the other organs over the eyes, are much later in maturing; and, that teaching children to read, spell, and write first, is *not* calculated to excite, feed, or develop their intellectual organs, and that the confinement

attendent upon sending children, especially *young* or *delicate* children, to school, is most injurious; that, therefore, the present system of early education, is a curse, not a blessing—deadens instead of developing the intellects of children, and is one of the main causes of that want of intellect which characterizes the mass of mankind; and, that the method we have thus far pointed out, of teaching children *things first*, telling them stories, showing them the operations of nature, trying experiments, chemical, philosophical, &c., teaching them natural history, and answering all their questions, as well as leading them up from facts to their laws, and teaching them to do their own thinking, harmonizes with the nature of mind in general, and of *infantile* mind in particular, that it interests, and thereby excites, improves, and invigorates that mind, and is directly calculated to develop it in all the power and glory of its creation.

I know this is strong language, but *I* KNOW *it to be* TRUE—I know it is *nature* as well as Phrenology, and that it *will prevail.* And the object of this work is to promulgate it as the first step in effecting this much needed reform—a reform lying at the very basis and foundation of *all* reform; for reform, to be successful, *must* be based on *intellect,* and this requires the *early* cultivation of that intellect, the natural governor of man. Still more. These results are based on *common sense;* and, if they do not strike every reader as substantially correct, at least in the main, then his common sense is not my common sense, nor the common sense of Phrenology. Let each inference of the series just given, be pondered, and canvassed, and compared with what is known to be true of the opening minds of children, and rejected or adopted accordingly. They must encounter a mass of prejudice, *but they will conquer,* and to *oppose* them is to be *beaten.*

Owing to causes already stated, this organ is one of the smallest of the intellectual organs. Hence it is that the great mass of mankind get their thinking done by *proxy*—that religious leaders do most of the religious thinking of mankind; political leaders, most of their political thinking, &c., and that mankind generally adhere to the religion and opinions of their parents; that cunning, designing men exert so much influence

over mankind, converting them into mere tools and dupes to carry forward their selfish foolish or villainous objects—that riches are more highly esteemed than talents—that men who live on the Approbativeness, or Combativeness, or Alimentiveness, or curiosity, or almost any other *feeling* of mankind, succeed to a charm, while those who live by their *intellects*, usually starve—why reforms make so slow progress, and effect so little—why the conversation of young people, especially of fashionable ladies, is soft and nonsensical—why the few are enabled to control the many—why so little time is devoted to intellectual culture, and so much to the gratification of the passions; why so little is yet known of *nature*, her laws and doings; why, in short, the *intellectual* lobe of men is so small, and the propensities so *large*.

But how can this organ be cultivated by adults, especially by *young people?* Simply by *thinking*, musing, meditating, contemplating, and inquiring at the shrine of nature into the laws and principles that govern things.

"But I've nothing to think *about*," says one. Poor soul, you *are* to be pitied. A world of wonders even within your self, and yet, barren heath, you've nothing to think about! A world of wonders above your head and beneath your feet, and yet, poor thought-ridden mortal, yov've nothing to think about. All nature around you teeming with events, every one of which has its cause, and most of them a cause within your reach, and yet, thought-starved mortal, you've nothing to think about! Poor thing, you shall have a name and a place among other idiots.

To any *young* person, then, I say, THINK. Wherever you are, whatever you are doing, if you see anything you do not comprehend, whether in nature or art, ferret out its *cause*, and then *think* about it: do not be ashamed to expose your ignorance in order to gain knowledge. Take a walk every day, two or three times a day to *think*, muse, meditate, contemplate.

"Oh, but I'm too busy for that," says one. Then you ought to be too busy to eat and sleep; for the *mind* requires food and exercise as much as the body. "But I have not sufficient *time* even to eat and sleep," is the reply. No matter, then, for you *must* find time to DIE the *sooner* for not thinking. *In-*

tellectual culture is directly calculated to *prolong* life, as well as a means of rendering it much more happy, and of effecting much more. Even as a means of accomplishing mere *worldly* ends, you will be a gainer by *cultivating your intellects;* for, its increased power will enable you to *save* more time by taking a shorter and surer road to your ends, than you lose in its culture. Besides: there is hardly an occupation in life, which does not allow of more or less opportunities for thought; for, whilst the hands are employed in labor, the mind can also be employed in meditation. Of all occupations suitable for intellectual culture, *farming* is the most favorable. Labor is promotive of mental action, whilst mornings, evenings,* rainy days, &c., increase these facilities.

The study of Phrenology is also highly promotive of intellectual culture; because, first, it deeply *interests*, and thereby excites the mind to new and vigorous action; and, secondly, it opens a far richer mine of thought, and field of intellectual research, than all other studies united, for it unfolds *man*.

I will just add that *night* thinking is highly injurious. While the natural sun pours its benign rays upon the delighted world, let your thoughts be also poured out upon the fields of nature, to be gathered in, expanded and instructed, as he descends beneath the western sky. Rise with the sun, or rather, with the *break of day*, nerve your mind gradually to action, as the skilful hunter *gradually* strains his unstrung bow, and be ready to commence your day of intellectual vigor with the rising of the sun, and, by the time he disappears in the west, you should have exhausted your cerebral energy for the day, and be sinking with him into the refreshing slumbers of night, to reawaken and rise again with him the next day.

I will just observe in passing, that if you have anything to do more important than cultivating your intellects, do, in all

*The allusion here made to farmer's studying evenings, ie adapted, not to the *nature* of man, but to that false custom of setting up late at night, a practice as reprehensible and injurious as it is universal. The good old Yankee custom of retiring at least by nine o'clock, is well worthy its high origin. All children should be taught to retire with the setting of the sun, and all adults should practice it, and lectures, meetings, &c., should be held in the *day* time. But more of this in another place.

conscience do it. If you cannot spare time from the *fashionable* world, or the *working* world, or the *political* world, or the *religious* world, or the *trading* world, or the *money-making* world, or the *ambitious* world, then do go on; for, your business is indeed of the *utmost* importance. All these things must of course be done up *first*, and intellect be thurst away back behind them *all*; because, if a man be *rich*, he gets along well enough without intellect; if poor, he has no time or means to use it; if he has on a fashionable coat, or can make a dandified bow, intellect would spoil both; if she be a young woman, she must first get *married*, and study how to attract the admiration of gentlemen instead of *thinking;* but if married, must take care of her family and children; and so it goes the world over. Hence, *intellect* is considered of very little account any how, and not worth the time or pains of raising, except to a few in an age.

LANGUAGE.

The COMMUNICATING *faculty: power of expressing one's ideas by words, both spoken and written: ability to learn spoken languages, and to use such words as will exactly express one's ideas: memory of words: versatility of expression: talkativeness, volubility, garrulity.*

ADAPTATION. Man is a *communicative* being. He has thoughts and feelings which he wishes to express, and which his fellow men may be profited by hearing. This faculty is adapted to the exchange and inter-communication of ideas between man and man, and is highly promotive of human happiness and improvement. Besides being one of the most powerful stimulators imaginable of nearly every one of the other faculties, it is certainly an instrument of intellectual improvement, and moral and social enjoyment unsurpassed by any other faculty.

Let every human being be tongue-tied, let every word ever used be blotted from existance, and writing, printing and reading totally abolished, and what an intellectual, moral, social and business stagnation would follow! Nothing could be sent for; the American Phrenological Journal must stop; scarcely a want expressed or supplied, and man's condition in every way most wretched. But, thanks to the great and good Author of our being, man can talk, write, speak, chain and be

chained to the mighty car of eloquence, and drink in the thoughts and feelings of others, in all their endless number and variety.

The *value* and *uses* of this faculty being great, its proper *cultivation* is equally important. How then, can it be *cultivated?* Do I not hear a word-bereft stammerer say, "Oh, I would give all I have to be able to express what I think and feel! to have the power of transplanting my ideas, and infusing my thoughts into the minds of my fellow-men? to be eloquent, to be fascinating in conversrtion, in short to have large language? I have tried my best, I have studied Greek and Latin—have translated Homer, Virgil, Demosthenes, Cicero, and Horace; have learned Hebrew and Arabic, French and Spanish, and yet, I *cannot* speak in public, or even express my ideas freely in conversation." Then I pity you; for, you have been walking a treadmill all your life to get forward, but have gone *backward* faster than forward. I can put you upon the track of cultivating your Language in short order. *Go to talking.* That is what you have to do. Just talk, talk, talk. This will exercise the *organ* of language, and increase your power of expression, whereas, studying the *dead* languages from books, will do you more harm than good. "It *will?* Why you astonish me; I thought this was the way to *cultivate* it!" and that is just where the learned have *always* erred. The one, distinctive office of Language is to employ *words* to communicate ideas, especially *orally;* and the one and *only* method of materially *improving* it is to *communicate*, especially to *talk.* This point is clear and certain, and though at war with the whole learned world, *it is right.* To set a child "on a bench to say A," and to send a youth to the academy and college to learn languages, in order to make him a fluent speaker, is sending him to the equator for ice, or to the poles for flowers. By *preventing* his talking, it *rusts* his organ of language, making him worse instead of better. But the most serious point of this serious evil is, the injury it does to his health, which *directly impairs* the tone and power of the organ, and thereby weakens the faculty. The law that produces this result, will be explained elsewhere. Sufficient for the present to say, that this organ, being close to the body, partakes intimate-

ly of the state of the body, being weakened or strengthened as the physical powers are increased or impaired. Most college graduates break down their health, and weaken instead of increasing, their speaking and talking talents. Has the reader never observed that he could converse, write, and speak with infinitely greater ease when well, than when unwell? This principle explains the cause, and teaches you this valuable lesson, that, in cultivating both your own and your child's language, *health* should be preserved *first of all.* Confining children in school, prevents exercise and physical development, and this reduces the power and versatility of Language.

All children are insessant *talkers.* Whether or not they have *ideas* to communicate, is quite immaterial. Their tongues are always running. Their prattle is incessant. Not so with adults, especially with Yankees. Now *why* this falling off of Language? Attend to my reply. "Hark! Who is that whispering there? Stop that whispering yonder, or I'll box your ears for you," says a school master to a child with large Language. And if, prompted by the instinctive workings of this faculty, another is caught whispering, he is surely punished. Better punish him for breathing or getting hungry; for, each of the three is equally natural and useful; and to punish for either, is cruel and unjust. In giving them Language and a tongue, the Author of their being gave them the *desire* and the *right* to use them in talking: nay, he even made talking their *duty* as well as privilege. Who, then, art *thou*, teacher or parent, that *dare* suppress this right derived from heaven, or punish its exercise? God and the child will hold you guilty for doing it; the former, for nullifying his works, and the latter, for weakening so pleasurable and useful a faculty.

Then what *shall* we do? for we cannot have the whole school jabbering away so that we can't hear ourselves think," say the teachers. Then send your children home. "But," says a parent, "how in the world can I get along with all my children pothering me, and deafening me with their eternal clatter? I must send them to school in order to get rid of them, and when there, they must keep still, or I'll whip them." Good lady, if your children are so *very* much in your way, you had better not have any. But since you have them, consult their good, and especially *intellectual* advancement, not

your own comfort. *Phrenology* says, let children talk all they please, and who art *thou* to "muzzle the mouth of the ox that treadeth out the corn?"

Besides, all will concede that *expressing* the ideas, increases their flow, and quickens the action of the mind. This truth is too self-evident to require either proof or illustration. Preventing your children from talking or whispering, is preventing them from exercising, and thereby enlarging, their intellects. "But must I be forever harrassed by their incessant chamoring and hallooing? Have I not a perfect *right* to keep them still?" Just such a right as you have to stop their breathing or eating, or to cut off their heads, or as the Hindoo mother has to drown them. You certainly have *no* right to cramp, or in any way embarrass the *development of their intellects.*

The best possible method of making a child an eloquent speaker, is to allow him the full, unrestrained use of his tongue during childhood and youth; but, send him to school, and let him be kept from saying a word there for the seven hours of the fourteen he is awake, and kept very still at home the rest of it, and then send him to college to break his constitution in thumbing lexicons, allowing him little chance to speak except passages committed to memory from some bombastic speaker, and, when he graduates, have him always *speak from notes,* (excuse the self-contradiction of *speaking* a *written* discourse,) and if he does not make as dull and prosy a speaker (?) as the generality of our college graduates are, and as formal and artificial in tone and gesture as though mind and body were lashed in a staight jacket, then water will not run down hill. Compare our Methodist clergymen with our Presbyterian, and tell me which class is the most eloquent? Those who mount the pulpit, and go to speaking *from the first.* Scarcely a spark of true eloquence escapes college-learned clergymen, except what congeals on the pen. Seldom do *written* discourses *come* from the heart or *reach* the heart. Eloquence can never be *written*—can never be dug up among Latin rubbish or Grecian mythology. No! it must be *felt and spoken.* Nor does it consist in *words* merely, nor in the ideas, but mainly in the thrilling, melting TONES of the voice.

How glorious a gift is that of eloquence! See it in Demosthenes, when he made his listeners sieze their arms, and cry

out, "Let us march against Philip. Let us *conquer or die*" —in Patrick Henry, when he roused and electrified Congress, and prepared the way for drafting the Declaration of Independence; and in a few others who, by this power, exerted an almost *unlimited* influence over the minds of their fellow men. To say that there is a thousand times more *natural* eloquence in man than is brought out by culture, or by the modern method of education, or rather, to say that most of our natural eloquence is buried in our school-houses, academies, and seats of learning, is to utter a palpable but lamentable truth. You who hesitate for words, who have ideas but do not know how to let others have them, who lose much of the force and beauty of your ideas, or the power of your feelings, in vain attempts to communicate them, who hesitate for words, and want to say something but can not, may thank your "setting on a bench and saying A"—your being boxed, or ferruled, or disgraced for whispering in school, and kept still at home for it. In other words, thank those who suppressed, when they should have encouraged your talking disposition. From *such* thankless thanks, "good Lord deliver us."

If you wish to regain this lost sheep, go to talking. Drive out your ideas somehow, anyhow; but, at all events give them wind. Join debating societies, and speaking clubs, and make talk with every one you meet. Commit to memory, and repeat; in short, *communicate* and *use words* as much and as well as possible. This will call this *faculty* into action, and improve it, as well as enlarge the organ. It is worth your trial. *Especially* if you wish to become a *public* speaker, *speak* in public, and take down your notes in your *brain*, employing the principle already presented.

Much pains are taken to teach children good *grammar*. This may be obviated. Your rules of parsing, &c., are of little service. I will point out a far more excellent way. Let parents only *speak* properly, and always use *good* language, and their children will do the same. To speak and write *properly*, is as *natural* as to speak at all, and this is as natural as seeing or breathing, because each is the intutive exercise of its appropriate faculty. The error commences *in the cradle*. Parents, especially mothers, usually talk *baby* talk to their children,

which consists in saying silly things ungrammatically. If infants do need milk to nourish their bodies, they certainly do not need silliness to feed their minds. Talk *ideas* to them or say nothing, and speak grammatically, and also use good language, and your children will do the same.

A word more as to this baby nonsense. Like excites like. This is as true of infants, comparatively, as of adults. Children over two years old, understand, or are capable of understanding most that is said to them. If ideas are spoken, their ideas are excited, and intellect developed; and, if good language be used, they will not only *imitate* the same, but even feel their sentiment of the beautiful excited, and good taste thereby cultivated, besides having matter for reflection. "A word to the wise." The conversation of parents to their children, and of adults before children, might and should furnish an intellectual *feast* to their opening minds —should be grammatically expressed, and clothed in good language. Then will children, too, speak correctly, and charm you with the beauty and power of their words, as well as grow up with superior and fascinating conversational powers, if not become *natural orators*, and man's enjoyment derived from talking and listening be augmented twenty-fold.

Parents, *will* you not be persuaded to banish your baby balderdash, and your grovelling associations, and *elevate* and instruct your children by *conversation*, as well as by example?

In what has been said relative to learning the dead languages, the reader is not to infer that I consider a knowledge of them useless or valueless, or am hostile to their being, taught, and learned. I approve of them highly, but I repudiate the *modern method of teaching* them; for, it is unphreno logical. The method of teaching and learning them pointed out by *Phrenology* is, *talking* them. Books may be used as an *auxiliary*, merely, but not as the *main* method. Besides their spending several years of the best portion of their lives in acquiring Greek, Latin, and Hebrew, they usually forget all they ever knew about them, soon after leaving college. If they would have a school for teaching Greek, or Latin, or

*See the article on a kindred subject in the Journal department, signed CORMAC. It is worthy of high commendation, though not received till the text was prepared.

Hebrew, in which all the *conversation* was in the language they were learning, besides acquiring a thorough knowledge in one-tenth the usual time, they would then *retain* this knowledge, and be able to turn it to some *practical* account. The modern method of teaching French, by taking the pupil into a school and family where no other language is spoken, except in explanation of what they are learning is the only true one. But the *best* time to learn the languages, is in *childhood*, the nurse, or parent, or teacher, *talking* these languages to them.

Committing to memory comes under this organ, and is a valuable quality. The *extent* to which this power can be carried, is astonishing. A clergyman in England, delivered a lengthy address from manuscript, which he refused to let be published. One of his listeners, however, wrote it out *from memory*, and on comparing the two, there were only fourteen words that were not the same in both, and these were analogous.

Every body knows Attree of the Herald. As a reporter, he has few equals, and yet does not write short hand. Still, he gives his reports almost verbatim. His organ of Language is large, and he commits or writes a speech from memory, with astonishing facility. In a recent conversation with him, he remarked that, unless he kept it in *habitual exercise*, this faculty became rusty. This power of committing to memory, is extraordinary in most children, and should always be kept vigorous by *exercise*. They love to learn by rote, and they should be indulged in it. This exercise can and should be commenced long before they are old enough to learn to read, and continued through life. Printers in particular require it.

FORM.

Cognizance and recollection of the SHAPE *of objects, and of the* FACES *or countenances of persons, of the form and looks of things, of family resemblances, &c.: good eyesight.*

ADAPTATION. Every physical thing, all the pieces or items of matter which constitute our world, have some *form*, or *shape*. No physical thing can exist without having *some* shape or configuration. By means of it, we are able to designate and remember one person or thing from another. Infinite wis-

dom has wisely given the quality of *shape* to all bodies, and, at the same time imparted to man the faculty of Form, to enable him to perceive and make a useful application of this elementary property of matter Without this element in nature, man could not recognize his fellow man, or any thing in nature; but, with it fully developed, he recollects persons and things seen years ago, and distinguishes the animal, vegetable, or mineral kingdom by their shape.

This is one of the principle faculties employed in reading and spelling, though Language renders important assistance; Form by recollecting the *shape* of letters and words, and Language, by committing to memory. This leads me to speak of two important errors in the present method of teaching reading and spelling: first, of teaching children the shape of *letters* instead of words, the other, of teaching them to spell *by rote*—by the *way it sounds*, instead of by the *looks* of the word.

From what has before been said against teaching young children to read, let it not be supposed that I am opposed to their being taught these branches at all. Though I believe learning to read so as to *understand* the sense, requires much maturity and strength of mind, and though teaching children to read *mechanically* by *rote* merely, just as a parrot says "pretty polly," is a positive *injury* by compelling them to call the words but skipping the *sense*, and fall into that monotonous *sameness of tone* which characterizes most readers, adults as well as children, and is easily detected in most speakers, especially clergymen; still, after the way has been prepared by reading interesting stories to them, and kindling in them a desire to read, so as to read these stories themselves, and after they are capable of comprehending the *sense*, they should by all means be taught to read. Few, if any children, are capable of this before they are six or eight years old, and when they begin to tease you to teach them how to read, because they wish to *enjoy* reading, almost any child could be taught to read in one month and to read better than he would have read if he had begun at three years old. The reason is obvious. By beginning to read before they are capable of *understanding* the sense, they not only take no *interest* in the matter, and therefore learn slowly, but often conceive a *dislike* to reading, and

hence read only when compelled to. But, wait till they are *eager* to learn, and they will take the deepest *interest* in the matter, and *form a taste* for it, which is of immense advantage. Scarcely one child in fifty but hates study, and the reason is here disclosed—they learn to read before they are able to understand what they read, and therefore conceive a dislike to books, which lasts through life. The mother of Wesley would not let her son learn a letter till the day he was five years old, and that day she taught him every letter of the alphabet; and, the next day, she taught him to read the first verse in the Bible.*

I have always brought out this point at my lecture on the intellectual organs, and have afterward been waited upon by hundreds who have stated *facts* showing that children from six to eight years old, could be taught to read well *in one month*. In 1837, I gave this lecture in New Haven, and in going to New York the next day, a gentleman, one of the theological students, stated as an illustration of this point, that a friend of his forbid his boy learning a letter or opening a book till he was six years old; that, by that time, the boy's *desire* to read had kindled almost to a passion; and that, in *one month*, he learned to read fluently in the Bible, and had ever since been devoted to books. Hundreds of similar facts have been told me, and if any parent will pursue a similar course, I stand sponsor for the result.

But I will point out a method of teaching children to read, shorter and better than the present, and one that will obviate two-thirds of the difficulty connected with reading. It is this. Teach your child WORDS instead of letters. Thus: it is just as easy for your child to learn *has*, as to learn h, or a, or s; and this method saves him that immense difficulty of *compounding* the elementary sounds. And it must come to this after all. I appeal to every good proof-reader in christendom, whether he does not detect typographical errors by the *looks* of the word, not by spelling it over, or by remembering its gingle. The word *looks* wrong. It *strikes his eye* as incorrect. In other words, *Form* is the proper organ for spelling and reading, and therefore children should be taught to read and spell by the *looks* of words, not by *rote*. And this cultivates the organ of Form, or the natural organ for reading and spelling.

To cultivate this faculty, bear in mind the *countenances* of

those you see, so that you may know them again. Formerly, the circus performers and exhibitors of live animals, often allowed those who visited them in the forenoon, to pass in free in the afternoon or evening. If they gave tickets, they would be transferred, so that *others* would go in. Hence, the door-keeper was compelled to *recollect* them. To do this, he was obliged to look *sharply*, not at their dress, which might be changed, but at their faces. I have seen scores of trials, and every device contrived, to cheat the door-keeper, but never saw a failure. I regarded this as almost supernatural, but now see that their vigorous *exercise* of Form, enabled them to *carry faces in their eye.* This is practiced very successfully on our southern and western travelling routes. The collectors on the steamboats, rail-roads, &c., are obliged to remember who has paid, and who not, and where they came on board. I appeal whether their power in this respect is not often remarkable—all from its *exercise.* In England, there is a class of persons connected with prisons whose business is to detect old convicts. They closely scrutinize every one who is brought in, looking at every peculiarity in the form of the nose, or its insertion, at the mouth, eyes, forehead, shape of the body, &c., and rarely allow any one who has been in before, to pass undetected.

This affords a hint to all who would cultivate this faculty. Look every one full in the face: notice, and impress on your mind, the cast or expression of countenanae, the general contour of body; and continue looking till you have *rivited* it upon this faculty, and this will increase its power.

WEIGHT:

Or intuitive perception and application of the principles of gravity: ability to balance one's self—to ride a fractious horse, hold the hand steady, throw a ball, stone, or arrow, straight: shoot well, walk the edge of a plank, climb aloft without falling, preserve and regain the centre of gravity, keep the balance, &c.

ADAPTATION.—Without the arrangement, in nature, of *gravity*, or of attraction and cohesion, not only would all bodies be as likely to rise as fall, and incapable of being kept in any particular position, but even the particles composing every body, would be dissolved, and scattered any where and every

where throughout space. No house could be built; for, what would keep its materials together? What keeps the ocean in its bed, or the rivers from running *up* the mountain, or from being scattered over hill and dale, and destroying every thing? The rain would *ascend* as quickly and as often as descend, and our world be utterly uninhabitable.

That same Wisdom which made this indispensable arrangement in nature, also created the faculty of Weight to be its counterpart in man, and to perceive and apply its laws; else, we should have fallen and rolled where gravity carried us, and been incapable of doing the first thing to counteract its sway. But, thanks to the Author of our being, we can not only resist its action, in part, but even convert it to our service. Without it, we could not walk or sit; with it, we can stand against wind and tide, manage machinery, and effect beneficial ends innumerable.

Its cultivation is highly important, yet little attended to. Who ever thinks of inculcating its exercise in children, or practising it themselves, unless by chance? And yet it should be commenced in infancy. Instead of holding or bracing up a child, so that it *cannot* roll over or fall, let it hold itself up, or else roll into some uncomfortable position, so as to teach it to steady itself, and sit up, creep, &c., early. As soon as it can stand or walk, encourage it, and as early as possible, take it on your hand, in a setting or standing posture, and, partly holding it and partly not, carry it around the room on your extended hand, and change its position more and still more quickly, so as to teach it to *keep itself from falling.*

But most mothers take the *opposite* course, which is highly injurious. They *forbid* their climbing up on chairs, by the window, on fences, trees, &c., because "you'll *fall,*" and are continually ringing in their ears, "take care! take care, I tell you! you'll fall! *you'll fall!!*" This always reminds me of a fidgety old grand-mother, who charged her grand-son never to go near the water *till he had learned to swim*, lest he should get drowned. This is just like those mothers who forbid their children's climbing lest they fall. The very way to *prevent* their falling, is to encourage their climbing. This exercises, and thereby enlarges their organ of Weight, which, when large, renders them more safe aloft than those who have it

small are on the floor. *Cultivating* this faculty, in these and other ways, will prevent their getting many an extra *bump*, which injures their brain, and induces its disease, just because the parent *prevented* its exercise by forbidding its climbing, throwing stones, &c. And then, too, it is useful in so many thousand ways through life, that its due exercise should form a part of early education, as much as talking, and for the same reason, namely, that *both* are a *function of our nature.*

CALCULATION:

Or, ability to reckon figures IN THE HEAD, *memory of numbers: intuitive, perception of the relations of numbers or figures:* MENTAL *arithmetic: numerical computation: adding, subtracting, dividing, and multiplying* MENTALLY.

ADAPTATION. Every thing and collection of things in nature, has a *number.* We cannot help regarding things as one, two, three, four, &c., that is, *counting.* Let all idea of number be effaced, and no business could be transacted; millions of dollars would be as one, and one as millions; or rather, man would be incapable of comprehending or distinguishing either one or many, and all pecuniary transactions must cease. Important advantages grow out of this arrangement in nature and faculty in man. It should therefore be *cultivated*, but not as it generally is, by waiting till a child is old enough to "cipher," and then give him a slate-pencil, and arithmetic, and require him to learn a rule, and then work out the sum on the *slate.* All children love to count. Encourage and aid them in this. At two years old, teach them to count your fingers, and other things, and then to perform other numerical operations mentally. I verily believe that if every arithmetic in christendom were destroyed, and no more printed, the rising race would learn to cast accounts *better* than now. I grant that properly used, they might be useful, but they are *now* made to *supersede* the *natural* method of reckoning things, that is *in the head. Nature* is always better than art. Though the latter may *aid* the former; yet, when art *usurps* the prerogative of nature, it only spoils her operations. This teaching children *ciphering*, and that by rule, and thereby leaving *mental* arithmetic almost uncultivated, accounts for our being obliged to employ figures; whereas, in nearly all business transactions, the *head alone* should be used.

Those who would cultivate this faculty, should *rely* upon their heads, both for *casting* accounts, and *remembering* them, and should embrace every opportunity when riding or walking, to exercise it. Thus: in riding on a rail-road, observe by the minute or second hand of your watch, how many seconds you are in going a mile, then reckon the number of miles per hour, then per day, per year, &c. Then count the rails of a fence and its crooks in a mile, and then multiply the number of rails in a crook, with the number of crooks in a mile, and so wherever you go, you can be making similar calculations.

You should also *charge* your memory with things. Thus: Eighty million pounds of coffee are consumed annually in the U. S., and 25 millions in Great Britain; and so of other statistics. You would then seldom be at a loss for statistical information—the most difficult matter to be recollected. Applying this to dates, you should recollect the date of things recorded in history, that is, the *number* of the year; though recollecting the time from one event to another, comes under

TIME:

Or cognizance and recollection of WHEN, *of* SUCCESSION *and the* LAPSE *of time, of* DURATION, *dates, &c,: disposition and ability to keep the* BEAT *in music, dancing, &c.; and to tell the time of the day,* WHEN *things occurred, &c.*

ADAPTATION. Instead of being planted down in the midst of one unchanging *now*, man is placed in a world of *succession*. One event happens BEFORE or AFTER another. His life is composed of a CONTINUITY of times—of a continual variation of periods. From infancy to old age, up through childhood, youth, middle age, old age, and death, every day, hour, second, and item of existence, *follows* its predecessor, and precedes its successor in point of *time*. We look back upon the *past*, and cast the eye of hope or dread *forward* into the future. We make appointments to do certain things at certain *times* to come, and all are able to discern the *arrival* of that time. This faculty adapts man to this arrangement of succession. But for this arrangement in the nature of things, all doings or exercises of mind relating to the past or future would be annihilated, all conception of any other period than the *present*—than one monotonous now* obliterated, and with

* The only rational idea man can form of eternity is, *one continuous*

it, all the arrangements relating to *eras*, ages, years, the seasons, months, days, hours, seconds, the relations of infancy, childhood, youth, middle age, old age, death, the past, and the future, &c., extinct to man; which would effectually break up the present order of things. With this arrangement in nature, but without this faculty in man, though they would exist and succeed each other, that existence and succession, and their application to appointments and to every thing connected with the past and future, would be as utterly inconceivable to man, as the beautifully blended colors of the rainbow are to the blind, or music is to the deaf. But with this arrangement of time in the nature of things, and this faculty in man adapted to it, man can hold converse with what has been, and what *will* be for thousands of years each way—can divide and subdivide the future and the past to his liking, and have a *time* for every thing, and every thing in its time.

This arrangement is highly calculated to promote health, and eminently useful in the dispatch of business. Nearly all the operations of life require its assistance, and are facilitated by its full development. Hence, its cultivation becomes an item in education of very considerable importance; and yet, that cultivation is scarcely once thought of from the cradle to the grave; and hence too, it is usually one of the smallest organs in the human head. This need not, and *should* not be; it should be *cultivated* from infancy to old age.

The only means of cultivating it is to EXERCISE it, and this can be done. not by carrying a watch in your pocket, and often reading the time of day from its dial, or from a clock before you, but from keeping the time of day *in your head*, and re taining in your memory the *when* things took place, or the *order* of their occurrence, *how long* certain events occurred before

NOW, or the utter abolition of time, and substitution of one continuous NOW. To talk about eternity continuing through myriads of successive ages, is utter folly; for a *succession* must have both a beginning and an end. The idea of *periods* of time, can no more be connected with eternity, than an end can be connected with the circle. Thus, Phrenology will help religionists out of many an otherwise inexplicable difficulty. Mind, unconnected with matter, knows nothing about space, bulk, ponderosity, colors, &c., which are terms belonging to matter.

or after others; the day of the week, month, and year of their occurrence. I verily believe that if every time-piece in christendom were destroyed, and no others made, mankind would be better off than they now are; for, then they would be compelled to *exercise* this organ vigorously, which would so strengthen it as to enable it to do all that time pieces now do, with equal accuracy, and a thousand other things which time-pieces can never do; whereas now, the time being kept in their pockets, this organ has nothing to do, and therefore does nothing, becoming small from mere inaction, and the pleasures flowing from its exercise, abridged. Men would be more punctual then than they now are. Their time-pieces would vary less, never run down, and admonish them that a certain time has come; whereas now, *nature's* time-keeper being laid by, we often forget to look at that of art, and so the time appointed pases unobserved.

I have always strenuously advocated the superiority of *nature* over art. The latter may often be employed to *aid* the former, but never to *precede* or supersede her. Time-pieces may aid Time just as arithmetic may aid Calculation—books, Language—notes, Tune—geography, Locality—logic, the reasoning Faculties, &c.; but *they* should never *supercede* it. It should be the boss workman, they, its assistants merely, and rarely employed. If the works of man can excel those of his Maker, if art can do better than nature, then are time-pieces better than keeping the time *in the head.* The thought is preposterous, and this relying upon time-pieces to the neglect of that time-keeper placed by the God of nature in the head of man, must eventuate in evil. To *avoid* this evil, exercise this faculty by keeping the time within yourself.

The extent to which the exercise of this faculty is capable of augmenting its power, is astonishing, far greater than most persons imagine. The experienced nurse will throw herself upon her couch—first charging this faculty to awaken her in just two hours, or half an hour—as the Doctor may have ordered—and this *watching* sentinel counts off the minutes and hours while the other faculties sleep, till the time arrives, when it sounds the alarm, and summons the other faculties to the post of action. Many of our elderly farmers, who were not blessed (?) with a time-piece when boys, can sleep soundly till

the time previously appointed for rising arrives, and invariably awaken within a few minutes of the time they appoint. Many elderly persons are in the habit of waking and rising at a given hour, and, whether or not they may have been previously broken of their rest, awaken at the usual time. *Every* one might and should *habituate* himself to this and similar practices. They will soon become second nature, and be of incalculable value through life. Magnetized patients, when required by the magnetizer to awaken in any specified number of minutes, do so, almost to a second, and with an accuracy incomparably greater than that possessed by most persons in their natural state.

In order to cultivate this faculty, think often during the day, what *time* it is, and compare your judgment with a time-piece; keep steps in walking, marching, dancing, &c., and the beat in music; in reading history, impress the era, and the *order* of events, strongly upon your mind, and compare eras, that is, the destruction of Carthage with the reign of Julius Cæsar, and also with the founding of Rome, the reign of Cyrus, the Pelopenician wars, &c. Give yourself so many minutes or hours to do certain things, and observe the time taken in doing them, which, besides improving this faculty, will greatly aid you in laying out your time. Be punctual at your meals, appointments, and every set time for doing things, and fix a time for doing things whenever it is practicable; and above all things, *employ all your time.*

This leads me to speak of an almost fatal error or omission; namely, that of allowing many a minute and hour to pass without doing much of any thing in particular. True, persons breathe, and perhaps move, or talk, but *effect* nothing of importance. They regard the loss of a half-hour at breakfast, an hour at dinner, and many minutes and scraps of time during the day, and perhaps the morning or evening or both, as of little account, and thus soon squander weeks and years, which, rightly employed, might have contributed largely, not only to their present, but also to their future enjoyment. I know of no lesson that can be instilled into the forming minds of children more important than teaching them to *fill up every minute*, every *second* of time with something *useful* to them.

selves or others. Who ever saw a *great* or a good man not full of business, too full to find any leisure time to waste?

Another immense consumption of time occurs in not doing the most *important* things first, and throwing minor matters into the background. A vast amount of time is consumed in being *fashionable*, in altering dresses, bonnets, &c., in preparing for parties, in making a display; in idle, foolish conversation that does no one any good; in making things of little comparative value, too numerous to mention; in preparing and drinking tea, coffee, chocolate, wines, spirituous liquors, &c., &c., which do more harm than good; in building elegant mansions, and making splendid furniture, carriages, equipage, in acquiring wealth, &c., &c., mainly for *looks*, the *extra* time spent upon them, being a waste of that precious gift—existence; and so of thousands of things of which these will serve as samples.

The fact is, that man's standard by which he values things, is utterly erroneous, and this error is fatal to his happiness. Let him but consult his *nature*, as developed by Phrenology; let him see what faculties he has, their relative size, when large,* and the conditions of their action, their wants, and natural functions, and he will have the true *data* for the division of his time. Two or three faculties combined, now usually engross most of the time of man, besides enslaving the other faculties. Let all the time spent in every thing appertaining to raising and preparing food and eating it, and in drinking, (Alimentiveness) to fluttering in the sunshine of fashionable life, [Approbativeness and Self-Esteem,] and to love, [Amativeness and Adhesiveness,] and to acquiring property, [Acquisitiveness,] be separated from the time spent in other things, and the balance would be small indeed. Is it right, is it wise to allow these few *animal* feelings to rule the entire man? Was man made merely, or even mainly, to eat, show off, be sensual, and amass wealth? Is *this* the degrading destiny of man? "No!" exclaims Phrenology; "for, man has *other*

*Large Cautiousness occupies several times more brain than large Size, and large Causality or Adhesiveness, than large Color, or Weight, &c.; and the larger any faculty is in this sense, the more happiness or suffering will its action impart.

and *larger* organs to be fed and exercised. His *moral and intellectual* faculties, should engross most of his time. Attention devoted to them, is the most important, the most momentous business of life. Let time be spent on *them first*, and then let surplus time go to the lower feelings.

A vast amount of time is also consumed by one person trespassing upon the time of others. Time is life; and as one man has no right to take the *life* of another, so he has none to consume his *time*. Hence, whenever with our fellow men, we should either let them entirely alone, or else do our best to benefit them, and be very careful how we encroach upon the time of others. Nor should we allow *our* time to be encroached upon by others, because silly fashion has made it a rule to drop whatever we are doing, and attend to company. I, for one, despise and disregard this requirement; not giving any of my time to others for *politeness* sake, and considering my short stay on earth too valuable to myself, too important to my fellow men, to be squandered in dancing attendance at the shrine of fashion.

These remarks upon the value and improvement of time, have struck a deep and rich vein, which, at other times, and in other connections, I intend to follow out more fully; for, it is a subject that lays near my heart, and one over which I have longed mourned.

TUNE.

The musical faculty: disposition to sing: ability to learn tunes and detect discord BY THE EAR: *sense of melody and musical harmony.*

ADAPTATION.—Man is a *musical* animal, and so constituted as to receive a great amount of real pleasure in singing and listening to music; and this faculty is the means and medium of that pleasure. It is adapted to *musical sounds* and to concord in music, and the musical octave is adapted to it. Without it, or in its absence, one note in music cannot be distinguished from another, and that soul-stirring delight experienced in its exercise would be unknown. With it, the merry, friendly, mournful, devotional, martial, and almost every other sentiment and prssion can be combined, and stirred up to a degree of intensity scarcely possible without it. It may also be em-

ployed as a means of refining and elevating the feelings, and exciting the thrilling, touching, melting, exquisite, beautiful, &c.

Music is music, the world over, and concord and discord affect the ears of the savage and the civilized in the same manner. What is music to the refined Anglo-Saxon, is equally so to the red man of the forest, and the sons and daughters of China and Siberia, and their octave is our octave. The musical feeling is planted in nearly every human soul, being as much a constituent portion of man, as lungs, or brain, or a mouth, and is designed and calculated greatly to augment human happiness and improvement. It should, threfore, be universally cultivated, especially in the young. It *is* generally cultivated, but not rightly, or in harmony with its *natural* function.

Its one, distinctive function is to learn to sing *by ear*. It scorns the trammels of notes, gamuts, and fa, sol, las, but gives a spontaneous expression to this musical feeling by appropriate sounds, or else learns tunes *by rote*, or from hearing them sung or played. True, it calls notes and instruments, and the *science* of music to its aid, but only as attendants and *servants*; whereas the modern method of teaching music has rendered them *primaries* and principals, to the almost entire exclusion of singing by ear. And then, too, our concerts, olois, theatre, church, and parlor music, is nearly all purely artificial, scarcely a vestage of *natural* music remaining. True, they display great *science*, and wonderful *skill* and *art*, but artificial music does not come from the *heart*, nor *reach* the heart. It may make you wonder at the skill of the performer, but does not stir up the fountain of *feeling*, nor make you happy. I very believe that burning every note of music ever printed, and preventing any more from being printed, would augment man's pleasure derived from music, besides faciliating its acquisition. When art can excel nature, when man can outdo his Maker, then, but not till then, may we be benefited by learning and practicing music *scientifically*, or from books first. Many music teachers forbid their pupils singing by rote, yet, they may as well pull out their teeth, or sow up their mouths, in order to help them eat, or set them to studying the dead languages in order to make them good speakers. [See re-

marks on Language.] Teach them to sing *by ear first*, and then, if you see fit to aid them by teaching the *science* and "rules" of music, and to read tunes by *note*, they may be aided and perfected, but teaching them the latter *first*, is like standing a pyramid on its apix.

And then, too, learning to sing the natural way, is as much more easy than by rule, as walking on the feet is easier than on the hands, because the former is *natural*, and the latter, unnatural. I cordially approve a practice quite common in New England, of frequently relieving the tedium of the school-room by singing a tune in which the scholars take part, and thereby cultivate this faculty early, and in the *natural* way. Let all young children be sung to a great deal by parents and nurses, and encouraged to sing themselves, and let all, especially the young, instead of waiting till they have taken lessons in music, or for a formal set-to at the piano or accordian, strike up the cheerful lays when about the house, or garden, or field, and promote their own happiness, as well as that of those about you, by giving frequent and unrestrained expression to those lively buoyant, cheerful, happy feelings so common to youth. Let boys whistle, and let laborers make the fields ring and the forests echo with their merry, thrilling notes of music, and our young ladies (except those who are corseted too tight to inspire breath enough to sing well,) as they skip and fly from room to room, strike up some lively song or pleasing chorus.

It should be added that singing is highly promotive of health; for it exercises and thereby strengthens and invigorates the lungs, by increasing the amount of air inhaled, and aids digestion, besides affording much exercise of parts too liable to remain dormant—three of the main functions of animal life, as well as conditions of health. It also throws a cheerful, serene influence over the mind and feelings, and infuses new life into the whole man, physical and intellectual. Plaintive tunes, and minor modes, should seldom be sung, especially to children, for they depress the feelings, diminish the circulation, and overcast the mind with gloom and sadness, yet *sacred* music is highly beneficial; for, it imparts a calmness and serenity to be obtained no where else.

The *combinations* of Tune' are inimitably beautiful, and, by means of them, nearly every feeling and sentiment may be enjoyed and expressed sweetly and delightfully. Thus: combined with Language and the social feelings, it expresses affection and love; with Combativeness and Destructiveness, it revels in the martial sounds of the fife, the bugle, and drum; with Constructiveness, it whiles away the tedious hours of labor by song; with Veneration, it sings the songs of Zion, and elevates and purifies the soul by kindling and expressing the sentiment of devotion, of gratitude, of praise, &c.; with Philoprogenitiveness, it sings cradle ditties; with Mirthfulness, it sings the comic song, and with unbridled Amativeness added, it joins in boisterous revelry and mirth, &c. Hence, it can be rendered subservient to the best of ends, or to the worst—can be employed to elevate and purify, or degrade and debase, its possessor; so that its combinations with the higher sentiments should be cultivated; but not in accordance with the modern musical tastes and fashions, which are mostly wrong. A few of their errors are too glaring to be allowed to pass unexposed and unreproved.

1. Though the musical taste and talent are strong and active in infancy and childhood, yet the artificial singing of adults, does not call it into vigorous exercise, and therefore, it becomes small. After its size has been thus reduced, girls and young ladies are set down to the piano *as a task*, and *compelled* to practice hour after hour *from notes* without any aid or relish from love of music, till they become tired and disgusted. And then, they must be laced so tightly that they can not perform with ease, and are injured instead of being benefited, and the whole of their singing rendered stale and artificial. Still, they *must* learn music in order to get husbands; to be laid aside when that one end of female education is attained. Now, if this singing *by rote*, and singing when about the house, while the hands are employed in labor, were cultivated from childhood, it would be continued through life, pouring an almost continual stream of pleasure into the soul of its possessor.

2. The words usually set to fashionable music meets my unqualified censure; for, three-fourths if not nine-tenths of them are love-sick ditties, or the pinings of unrequited love. I can

not see how half of them can be sung by a modest lady without crimsoning her cheek with the blush of shame. And then, to give music its full power, the performer must *feel* both the words and the song. It is passing strange how fashion can so "strain at a gnat, and swallow a camel," but no more strange than true. However, those *ladies* who think otherwise, have the same liberty to sing these love-sick verses that I have to think what I please about those who do it.

3. But the principal fault of modern singing, is that it is *unnatural, strained,* and *artificial.* This is a natnral consequence, however, of the method by which it is taught, and can be obviated only by teaching *children* to sing, and that *by rote.* Listen to the music of the concert, the parlor, the theatre, the field, and even the sanctuary, and how little emotion does it stir up, compared with what might be done. Sacred music, properly conducted, would fill all our churches, and induce many to attend meetings, whom this artificial singing will not induce to come.

I doubt the utility of having the singing in our churches performed by a chosen *few,* called "the choir." Rather let it be done by the whole congregation. Pursue the plan already pointed out, and all will be as competent to sing in a church as *any* now are; for, all have the organ, and, by beginning young all *might* learn to sing. This organ averages several degrees larger in children than in adults; the cause of this has already been attributed to *artificial* music having been so generally substituted for that which is natural.

A good voice is also indispensable to a good singer, and a strong constitution is equally indispensable to a good voice; so that a good voice for singing—one that is clear and strong, is a sign of good health, while a feeble voice, formed at the top of the throat, and not shrill, clear and, full, evinces a weak, frail organization. I have noticed, also, that in addition to a strong constitution, good singers usually have the sanguine nervous, or vital mental, temperaments; which give remarkable *intensity* and power of feeling, and this intensity of feeling is the most essential element in good singing.

Time and Tune naturally act together, and mutually aid each other. Hence, it is as natural for children to keep correct *time* in singing, as to sing at all. There are probably two organs of Tune, the lower one for catching tunes and singing; the upper, for appreciating the higher qualities of music, such as its harmony, and the lofty, the the thrilling, and exquisite in song.

Instrumental music is very good, and playing on wind instruments is calculated to strengthen the lungs, (unless carried to excess,) yet, after all, no instrument ever made by man, can equal the human voice, either for melody, or expression, or sweetness of tone. Let no person neglect to *sing much*, and *sing daily*.

After making remarks analogous to these at Chelmsford, Mass, the Presbyterian clergyman of that place remarked, that they were in striking harmony with the system of Pestalozzi, and added that a singing master then in C., was conducting a school upon this principle. About that system I know little or nothing, not as much as I wish; but, if it be analogous to this, it must certainly be correct, because founded in the nature of mind.

LOCALITY.

Local memory; recollection of the PLACE WHERE *we have seen persons or things; the geographical faculty; memory of roads, scenery, the looks of places, where on the page certain facts or accounts were seen, &c.; desire to* TRAVEL *and see places, and ability to find them; the* WHERE *faculty.*

ADAPTATION.—Every physical thing must be in some PLACE, and one thing cannot be where another is. Space exists, and constitutes a *necessary* property of matter; and thus far, man has been unable to find its limits. Around us, above us, every way, it is to us boundless. The extent to which man has carried his observations, though millions on millions of miles, is probably but a small moiety of those endless fields of space which have been stretched out by the hand of the Almighty.

But for this element of things, our houses and every thing else, could have no place to be, could be *no-where*, that is,

could not be at all; and without this faculty in man adapted to this element of matter, though his house and other things might have a "local habitation," yet he would be unable to find them, and would be perfectly lost every time he left one place or thing to find another. This faculty enables its possessor to retrace his steps through a winding road with many cross roads, or through the forest; to call to mind the looks of places and position of things; to find places once seen; and to keep the points of the compass correctly in his head, &c. Those in whom it is small, soon lose themselves in a city or the woods, and find places or learn geography either practically, or from maps, with difficulty.

The valuable ends attained by the full development of this faculty, are very great; and the importance of cultivating it, is of course equally so. The present system of teaching geography, is probably less faulty than that of teaching any other science, yet it might be improved,

1. By being begun earlier, and rendered more practical. Thus; when your child is two years old, it will know the house in which it has lived from other houses, and should have its attention called to this point. Beginning with the rooms in your house, teach it which way is east, west, north, and south, above, below, right, left, &c., and often ask it in which room the bureau, or sofa, or clock, or stove, &c. is, and then, in what *part* of the room. Then, if you live in the country, or have a garden or fields, teach it their geography, and frequently ask it where certain trees, or fields, or stones, &c. &c. are; where the woods, wheat-field, corn-field, meadow, &c. are; where such and such neighbors live, and a thousand similar questions. If you live in the city, pursue a similar course in regard to houses, &c., and when you walk out, ask in what direction home is, or any curious thing it may have seen.

In presenting this subject, I cannot probably do better than to draw my illustrations from the course pursued by myself in reference to my own daughter. After moving from 210 Chestnut st., Philadelphia, when she was just two years old, I observed that when she passed it, she stopped, saying, "I used to live there." Taking her upon my horse, (which, in spite of its being unusual, I did for her health, as well as my own,) as

I rode up or down the street, I ask her which way home or mother was; and then turning a corner, I asked "which way *now?*" I one day called her attention to a place somewhat unusual in looks, and stopped my horse, requesting her to look at it, so as to remember it next time. A little further on, we saw a parrot, which delighted her exceedingly. The next day, as we came to the place just mentioned, she exclaimed with joy, "Oh pa, we are coming to the *parrot* soon." I asked her which *way* the parrot was, and thus embrace every opportunity to exercise her *Locality* as well as Individuality, Eventuality, Language, and Causality.

After pursuing this course for a time, you can extend your explanations to the geography of the earth, but, in so doing, bear one thing in mind—namely, to teach them the *natural* divisions of the earth, such as its divisions into mountains, rivers, oceans, valleys, &c. *first*, before you begin to explain the *artificial* divisions of the land into different countries or states. Thus, in teaching them the great natural landmarks of the earth, suppose you begin with the mountains; and, commencing, at the southern extremity of South America, show them a map, or some representation of the Andes, and their passage north and east through the isthmus of Darien, and forming the rocky mountains, which extend to Behring's straits, cross into North-eastern Asia, forming Kamskatska, and extending on to the Himmaleh mountains, and then branching off, one branch forming the Polynesian Islands, and the other running east and forming Mount Ararat, the Alps, Pyrenees, rocky cliffs of Gibraltar, and the mountains of the Moon, in Northern Africa, &c. Here they have the mountainous framework of our globe.

Then teach them the divisions of this land into the basins of rivers; such as the valley of the Mississippi, St. Lawrence, Hudson, Connecticut, &c., and their sub-divisions, the former into those of the Ohio, Missouri, Arkansaw, &c. Then show them the leading characteristic, or topography of each. Each valley has its leading features. Thus; the St. Lawrence is characterized, throughout its course, by innumerable falls, exactly like those of Niagara and Genesee, except in size. The same range of rocks that forms the Niagara falls, also

extends on east and forms the Genesee falls, and those in the Black River at and near Watertown. The same horizontal strata of rocks, the same deep gully below the falls, and the same fossil remains in the same strata, characterize them all, and all the rivers that enter the St. Lawrence, whether from Canada or from the U. S. The same is true of the aspect of the country.

The Susquehanna, again, has an aspect entirely different from that of the St. Lawrence. Its bed, from the head-waters of all its branches, throughout its entire course, is broad, and its waters shallow, and on each side, at almost any part of it, or any of its branches, will be found terraces, or rapid ascents from the bed of the river for a few feet, and then a level, and another rise and level, corresponding on each side of the river. Its waters often run close under the base of the mountain, which often rises rapidly to a great height, and is quite regular. Any person at all acquainted with the general aspect of either of these rivers, or of any of their branches, in casually entering any part which he had not seen, and did not know to what river it belonged, would know where it belonged just from its topographical resemblance to the other portions of that river.

Combining the organs, or calling *several* faculties into action. at the same time, will be found of incalculable value in teaching and learning geography, as, indeed, any thing else. That is, while you are exhibiting the position of places and the geography of a country to Locality; let Eventuality also be called into action by mingling the *events* or *history of the people*, with the geography and aspect of the country. In other words, let the teacher tell them all that is known of the history, peculiarities, modes of life, habits, government, laws, customs, &c., &c., of each country, together with landscape views of their principal cities, buildings, rivers, mountains, scenery, &c. For instance, connected with the geography of England, show them a view of London, taken from some point from which it can be seen to the best advantage, and then other views of "Westminster Abbey," "The Tower," "Buckingham Palace," &c., &c., with the history and remarkable events that have transpired in relation to each. And then, by a very cheap cosmorama, or a mere magnifying lens even, each pupil

could be placed in full view of London, or any other place, or scenery, or building in the world, and see it apparently in the distance and as large as life, and at an expense not greater than the present method of supplying each scholar with a geography and atlas; for then, one set could be made to serve the whole school. Let each civilized nation employ artists to take and lithrograph views of their principal landscapes, cities, &c.; and then let the nations *interchange* these specimens; and let *government* supply them to the public schools. *This* is what we want governments and public officers for; not to make long speeches, and roll logs, and vote for each other, that is, "I'll tickle you if you'll tickle me." As our governments are now conducted, they do *more harm than good*, besides spending immense sums of money which, spent in the way just proposed, and other similar ones, would do good, whereas it now only robs the pockets of the people, to be squandered by public (not servants, but) *spendthrifts and cheats:* but more of this in that series of articles entitled, "existing evils and their remedy," in which I shall expose political evils and abuses, and propose a more excellent way.

By teaching geography in this *way*, children would not *have* to be whipped to school, nor for playing truant, but would long for the hour to arrive when they could go to partake of so rich an intellectual feast.

This course presents still another advantage—that of teaching *the true nature of man.* Civilized life is mainly a *perversion* of human nature; but, a summary of the true nature of man, and thus of the true road to happiness, would thus be *forced* home upon every one of the rising generation, and this would lead to an *immediate* REFORM; for, it would reveal many excellent customs practiced in savage and half civilized life, and expose many that are injurious, and thereby lead the youthful mind to reflect upon the *true* nature of man, as well as to select "the good, but cast the bad away."

Another suggestion. The national *phrenological developments* of every nation, should be given, and the coincidences between their heads and characters, should be drawn. This, besides teaching them Phrenology, both in theory and practice, would enable them still farther to form a correct estimate of

the nature of man, and to see *what* customs of different nations are in harmony with it. Drawings of national heads, and busts of their leading characters, might and should be procured. If our Exploring Expedition had taken along a skilful and devoted *Phrenologist* to make examinations of national heads, and to set all hands at work collecting sculls, busts, specimens, drawings, &c., of national heads, as well as of the animals, including birds &c, of different climes, his labors and report *alone*, would have been worth more than that of all the rest besides and been a *"quid pro quo,"* or *equivalent* for its immense expense. "When will the nations learn wisdom?"

Still another suggestion. Every school should be furnished with a geological and minerological cabinet, embracing all the most important specimens of the globe. This might be done very easily, by that system of *exchanges* proposed and practiced by JOSIAH HOLBROOK. His plans are excellent. Let them be adopted, that is, let a school, situated in or near a coal or iron region, collect a great amount of iron oar, or coal of the kind near them, and let another school, situated in a marble, or granite, or scionite region, collect large quantities of marble, or granite, or sienite, &c; and then let each school *exchange* with evrey other. Let this system be extended to *nations*, as well as schools; or, rather let there be a *national institution*, to effect these and similar ends, including the geographical drawings mentioned above, and the good effected thereby, would be *incalculable*. It would also give employment to many discerning and talented artists, who are now almost starving, as well as foster a taste for the natural sciences and the fine arts, and spread light and knowledge throughout the earth. And think you that this would not lessen our calenders of crime, empty our prisons and penitentiaries, and] promote *moral purity* and *intellectual attainments*, to a degree which would well nigh drive vice and crime from our world, and do infinitely more to induce the reign of the moral and intellectual faculties than any other, if not than *all* other means now in operation, modern preaching included? This would as assuredly beget a love of study, and especially of the study of *nature*, of the *laws*, and *operations*, and *adaptations* of nature, which, in adition to the knowledge imparted, and the pleasure

afforded thereby, is more effectually and certainly promotive of moral purity, than any thing else in which the human mind can be engaged. To every student of nature, I appeal: Is not the study of nature *eminently* purifying and elevating to the soul? What more than the study of the works of God, is calculated to call forth Veneration in his worship, or Conscientiousness in living an upright, blameless life? What will fill the soul with wonder, praise, and love to God, more than beholding the infinite wisdom displayed in his works, and all to enable man to be happy in both body and mind? What will equally carry us

"Through nature up to Nature's God?"

What will equally quell the passions, promote good feeling, and moral integrity, and dispel vice and immorality in all their forms? But I forbear, for I am encroaching upon ground appropriated to another department of my subject, namely, the importance of training the *intellectual and moral faculties to act* TOGETHER, that is, of teaching GOD in ALL HIS WORKS, of NOT teaching children ANY thing in science or nature, without teaching them GOD in it all; or, the importance of studying and teaching NATURAL theology. After analysing the moral faculties, I propose to show that the juxtaposition of the moral and intellectual organs, as well as the facility with which the two combine, establishes the conclusion that NATURAL SCIENCE and NATURAL THEOLOGY, should be taught and learned TOGETHER; that the latter should form a part of early education, that the noxious dogmas and superstitions of modern religious sectarianisms, should be *rooted up*, and the study of the *works of God*, and of *God in* his works, substituted in theire stead—that modern religion is sadly defective in not being founded in, and built upon, *natral* religion and that natural theology and the character of God as drawn from his works, is indispensable; or rather, should *preceede* and *prepare the way* for, the teaching of salvation by Christ, which is only the *superstructure* of NATURAL theology; and which *must* be founded in it. Both religion and education are sadly deficient by each standing separately, whereas they *naturally* go together, and "what GOD hath joined together, let not *man* put asunder."

The studies of GEOLOGY AND ASTRONOMY come as appropriateley under the faculty of Locality, as any other. We cannot

see a rock or an embankment, a mountain, a valley, a river, a stone, a mineral, without having the conviction *forced* upon us, that some most important geological changes have occurred, and continue to occur, in regard to our earth. To me, *geological* facts and observations, have always been most interesting, and, though I know little about the *science* of geology, still I observe and reflect upon all the geological *phenomena* within my reach, as I travel from place to place. Nor do I fail to put together what I see in *different* places, and to search for a *common* cause, as well as to *philosophise* upon the earlier condition of our earth, &c., &c. The various layers of earth, seen on digging into an embankment, and the different strata of rocks and substances in the same rock, the different veins in rocks, the crystalizing of earths, pudding stones, conglomerated rocks, the shells often found imbedded in rocks, stones laying far above the water and yet appearing as if worn by running water, and having eddies in them, dug out by running water, petrifactions of fish and animals in stone, the tracks of animals in stone, and also even imbedded in rocks, and that on the tops of mountains,* the remains of animals, often of immense size, whose race is now extinct, found imbedded deep in the earth, and often even in solid rocks—these, and innumerable kindred phenomena, one and all, teach lessons about the past, if not prognosticate future events, which man can know and should learn, and which will yet lead to some discoveries of immense utility and magnitude. I say, then, let *children and youth* be taught *geology*. As you walk with them, past a rock composed of different materials, or see an embankment having different strata and qualities of soils, pebbles, clays, &c., one above another, point them out and explain what is known or supposed of their cause; and so of other things. Whenever prac-

* A few years ago, Prof. Hitchcock, of Amherst College, discovered numerous tracks of birds as large as the ostrich, and even larger, in the paving stones of the streets of New Haven. Posterity will award immortal honor to this distinguished devotee of science; and this eminently talented expounder of geology, for his successful labors in this and other departments of science. His head is the head of a truly great man,—one in an age,—and his talents are of the very highest order, besides their being turned to the best account, and being assiduously cultivated. Prof. Edward Hitchcock will be long and gratefully remembered and honored.

ticable, take them into coal and other mines, to salt-springs, sulphur-springs, mineral-springs, (those of Saratoga included,) or into a well before it is stoned up, and thus *put them upon the track* of observation and reflection, for themselves, and you will thus "sow seed on good ground," which will take deep "root, spring up, and bring forth fruit, some thirty, some fifty, and some a hundred fold," not only of *immediate pleasure*, but also of subsequent pleasure and profit to them throughout their whole lives. Get them a hammer, and take them with you to quarries, and upon the mountains in search of minerals, (at the same time calling their attention to interesting flowers, vegetables, &c., &c., as directed under the heads of Individuality and Eventuality,) and think you that these rural rambles will not invigorate and expand both mind and body, and stimulate the intellect a hundred fold more than does "setting on a bench and saying A," or spelling "baker, cider, brewer," &c., for the hundredth time? If not, then am I no judge of the nature and operations of mind—then have I been misled both by experience and observation. I repeat what I have before said, that our schools as now conducted, are *public curses*—that they *cramp*, instead of improving, the intellect—that they *deaden and diminish* both mind and body—that they violate nearly every law of intellectual culture—that they cause the intellectual dwarfishness of mankind, and also foster all the vices by creating a dislike for study, as well as by propagating the vices of every bad scholar through the school, throughout the district, and throughout the town—that we MUST *have* a *change*—and that *Phrenology* will work it. This glorious science has only to be spread and studied, completely to revolutionize man civilly, politically, religiously, morally, intellectually, and physically, so that a hundred years hence, he would not be recognised as belonging to the same race. Phrenologists, remember, that, in propogating this science, you, though a mere handful, are doing more good, promoting more happiness, abolishing more vice, and sowing the seeds of virtue, more than all the lawyers, doctors, teachers, clergymen, and religionists, of all christendom, and ten years will prove it by *experiment*. Ten years will turn, and overturn these United States, till the *true* principles of this sci-

ence leaven society, till existing institutions totter on their basis, and are "rolled together and pass away as a scroll," to make way for the principles revealed by this science. A greater instrument of good to mankind, was never raised up than this same "American Phrenological Journal," and a few years will give it the influence it is destined to exert. These pages will remodel the intellectual education of children—the first step towards this great and glorious result, and the balance of this work will remodel the *government* and *moral* training of children; which alone will gain the day; and then Phrenology applied to religion, will complete the victory, and renew man *morally* as well as socially,* intellectually and physically. Mark these prophecies, and place them by the side of 1852.

I have alluded to the study of Astronomy in connexion with Locality, because the relative *position* of the heavenly bodies, at different periods, comes under this organ more appropriately than under any other; though it involves Form, to give good eye-sight; Size, to appreciate distance; Weight, to take cognizance of motion; Calculation, to do the numerical computation; Eventuality, to take cognizance of the *changes* and *motions* of the heavenly bodies; Order, to perceive their harmony—"heaven's *first* law"—Time, to calculate their positions at *past* and *future periods;* and Causality and lower Comparison, to do the requisite reasoning. Still, SPACE and *position* are the two main things concerned in Astronomy, and therefore, my remarks on this science, come appropriately under this faculty.

From the summary just given of the organs enlarged in studying Astronomy, it is self-evident that no study affords more intellectual *discipline* than that of Astronomy. It should be generally studied,—not by the scientific few, who make almanacs,—but by all classes. Nor is this impossible on account of the difficulty connected with its being too deep and abstruse. I fully believe that good practical instruction only, is necessary to enable youth, if not children, to understand and practise it sufficiently for all ordinary purposes. At least, the various *constellations* might be pointed out, and the

* My work on Matrimony, will reform man in his social and matrimonial relations.

relative positions of the principal stars, together with the motions and distances of each, &c., &c. Nor is this all: the *time* of day and night might be correctly ascertained from their motions and positions. How is it that many of our old farmers, will get up at any time of the night, and tell the hour *accurately* by the position of the stars? And "if these things be done in a green tree, what shall be done in the dry?" If these things can be learned *without* a teacher or early instruction, but from *casual* observation *alone*, what could not be obtained by beginning these observations *early*, under excellent, practical *tuition*, and *continuing* them through *life?* Even the Indians can not only tell the time of the year and the hour of the day or night, with an accuracy impossible to us, but what is more, they can predict the *weather* for days and years to come. Our Astronomical observations are exceedingly limited and inaccurate; and yet, I am fully persuaded, that we *might* be able to tell the *state of the weather* and its *changes* for *days* and *weeks*, if not an entire season, and probably *several* seasons in advance. The animals do this. Then why not man? The spider shapes her net in anticipation of the weather, and changes it before we discover a sign of a change. If the season is to be wet, the beaver builds his hut one story higher *the preceding fall;* and, if the winter is to be very severe or protracted, the squirrel lays in an extra supply of nuts; and so of many other animals. A knowledge of these things is certainly more important to man than to animals, in order that, in a wet season, he may raise more of those crops that are adapted to wet weather, and in a dry, or cold, or hot season, he may plant and sow the kinds of crops that will grow best in that season, as well as plant or sow early or late, as the season is to be early or late. Does a merciful God, who has shown so much greater care for man than for brute, supply to brute so important a knowledge which he denies to man? True, they are said to be guided by what is called *instinct*, (I call it intuition, or the *natural, intuitive* action of the phrenological faculties;) but, if man has not the instinct, he has what is better, namely, *greater powers of observation and reflection.* And in addition to this, I believe he has as much *instinct*, at least in regard to the weather, as brutes, if he would only *display* it.

But however this may be, one thing is clear, that the weather is governed by invariable *laws* of cause and effect. Every change in the weather is *caused;* and these causes, or at least most of them, are within the scope of man's observation. I remember once hearing an old farmer observe, that the character of the equinoctial storm, was a sample of all the storms of the next six months—that if that storm came off clear and cold, all the storms of the fall and winter, would clear up in the same way, and the snow and cold be abundant, and the winter severe; but, if that storm cleared off warm and muggy, all the storms of the fall and winter would end in rain, and the winter be open. I have observed this every winter since, and found this sign invariable. The equinoctial storm of September, 1841, was remarkably warm, and the winter unusually mild and open.

I have also observed that the cold snaps, as they are called, of fall and winter, continue about three days—the first day being cold, the second *very* cold, and the third, cold, but less so than either of the others, which concludes the spell. And I believe a similar principle governs the *seasons* as well as days. So also, the frosts of fall tally with this arrangement. The first night of a cold spell brings a frost, the second, a heavy one, for the season, and the third again, lighter; though, early in the season, it may not be cold enough to cause a frost the third night, nor even the first; yet the *relative* coldness will be much the same.

I do not, however, intend to point out SIGNS of the weather, so much as to *illustrate* my idea that there *are* signs, which, if observed, would be of incalculable advantage to seamen, agriculturists, and indeed, to all, and that these signs should be pointed out to children, and additional ones observed. In other words, let this department of nature also be observed and studied, and all the advantages within our reach, derived from it. Many also think that the changes of the moon effect the weather, and even the feelings, as well as influence the crops. This may be, but I have never *observed* this point, and therefore only say, *look* to it.

In passing, I will add, that the study of the starry heavens has in it a certain something calculated to awaken emotions of

the sublime and the beautiful, surpassing all other studies. Thus, the rolling thunder—the forked lightning—the western sky tinged with gold as the descending sun sinks to rest—the clear, star-spangled canopy of heaven in a cloudless night—the twinkling stars rolling over your head—the northern lights pouring their radiance upon you, or rushing and roaring over your head—the pouring rain and rushing hail and snow—the immensity of space above, below, and all around you—all bespeak the power, glory, and grandeur of that being who created them, and are in themselves calculated to fill the soul with admiration and adoration for their great and all-powerful Architect. Who can contemplate the immensity of the Universe, without bowing in worship

"Before JEHOVAH's awful throne?"

Let "Dick's christian Philosopher," and kindred works, be studied, and a knowledge of Astronomy become general, and man will be the better and the more happy.

In order to cultivate Locality, I observe the country through which I pass; and, to do this the more easily, I mount the top of the stage, or promenade the deck of the steamboat as it traverses the valley and parts the hills, and catch a glimpse of hill, dale, field, and the aspect of the country as I dart past them on the Rail-Road; but, rapid travelling affords fewer facilities for its cultivation, than proceeding more slowly. And I stop no-where, even for the night, without following a river for a few miles, or ascending a hill to obtain a prospect; or following the shore of the ocean, or bay, or lake for miles, to see its geography, and always keep the points of the compass in my head.

I cannot forbear here expressing the hope that the dangers and expenses of travelling, will soon be diminished. Every steam-engine I see, enforces still more deeply the conviction I have long entertained, that we are on the eve of some *simple* discovery, in the application of steam, or in steam-machinery, by which the present immense consumption of fuel will be reduced ninety-nine times in every hundred, and the complication of the machines be obviated, so that they will not cost a hundredth part as much as now. I call the attention of mechanics, to this suggestion—not to the *improvement* of the

steam engine, but to its entire *remodelling*, so that the steam will emerge *directly* from the boiler upon—not the piston; for, that must be obviated—but by which it shall press *directly* upon a *revolving cylinder*, and give you the *whole* power of the steam—now not half its power is obtained—without any complication of the machinery, or danger of explosion. Then will the immense expense now attendant upon travelling, be obviated, and all the pleasure and advantages of travelling, which are very great, be enjoyed with very little loss.

The study of Phrenology affords excellent discipline to this faculty; for, every organ must be *located exactly right*. A successful Phrenologist must have it large and well disciplined Often, on retiring from the severe labors of examining heads all day, I have felt the brain composing this organ, as it were, appear to crawl, and have a prickling sensation, and in Dec. and Jan. last, when confined with the small-pox, and threat ened with the brain fever, the heat of my forehead was great, and the pain *most intense*, in Locality, Individuality, Form, Size, Eventuality, Comparison, and Benevolence; but, in Locality the *most* severe. In every other part of the body and head, the disease worked to admiration, and the pustules filled out finely, but above these organs, they refused to come to a head, and were a long time in recovering. Nor was it until this portion of my head was bathed in cold-water *for two days and nights in succession*, that the fever abated at this point, though it had subsided every where else. But more in another place of the organs brought into exercise in the successful study and practice of Phrenology.

The study of ANATOMY, also, comes under Locality more properly than under any other organ; for, it is the *position* or LOCATION both absolute and relative, of the organs of the body, which constitutes the *first* and *main* item of this study, although their *shape* is next in order and importance. Strange as the doctrine may seem, I maintain that *children should be taught* ANATOMY, in connexion with PHYSIOLOGY; that is, that they should be taught the *locations* and *functions* of the principal organs of the body. So important a study should *not* be confined to a few physicians and literati, but should be known by *all*. All need not be *profoundly* versed in it, yet all should understand it *practically*, and in the general. Thus: put chil-

dren's fingers upon your pulse, and, as they are delighted and astonished to observe its throbbing, tell them its use, namely, the action of the heart, and then explain the position and looks of the heart, and the whole doctrine of the circulation and respiration. As you may have occasion to kill a chicken for your table, or slaughter a calf or pig, on opening it, show them the position of the heart, and the manner in which it receives and ejects the blood, and give them all the information you can concerning it. Then do the same by the lungs, liver, intestines, &c.

Then ask them what has become of the great amount of *food* they have consumed; amounting, in all, to many times their own bulk. Then explain to them the office of the stomach, its position, looks, and the whole process of digestion,* and nutrition. What will delight or benefit them more? And think you that this knowledge will not make them careful in regard to injuring their health? What will more effectually promote the vigor of the constitution than a knowledge of the laws of life and health? Compared with this, all other knowledge is utter folly; and in point of utility, "is as a drop in the bucket."

Then put their hand on the back-bone, (I ought to be *learned*, and to call it the *spinal column;* though *back-bone* is just what I mean,) and, as the person moves his body, they will see the workings of the joints. (Oh, I forget to be *classical*, I should have said vertebræ; although few children or adults know what vertebræ means; but all understand what *joints* signify.)

Then clinch your fist, and show the cords or tendons of the hands and wrist, and the hardness (I mean rigidity) of the muscles of the arm, and their shortening and lengthening (contraction and relaxation) as you lift things in your hands; and show them *how* it is that this shortening of a muscle moves

* The studies of Anatomy and Physiology ought never to be separated from each other. When the *location* and appearance of an organ are studied, let its *office*, and the end in the animal economy it performs, be also studied; for, the study of each will facilitate that of the other, and each impress the other. Studying Anatomy *alone*, is like cutting up a dead man to see what a live one will do. Unite the two. Teach children the location and appearance of the several parts of the body, and at the same time teach them *what each part does*.

one of the bones of the joint over which the muscle passes, &c. Then tell them that these muscles by means of which we move, labor, &c., consistute the red flesh of all animals, and are what is usually *eaten*. Then show the workings of the bones upon each other at the joints. This can be done conveniently and beautifully when cutting up (I mean dissecting; how unaccountably unclassical I am though,) a chicken for dinner, or a hog (I mean swine; for, it is very *vulgar* to say *hog*) for salting.

Then cut open the brains of animals; (brains are very good to eat, especially for those who have but few of their own,) and show them the structure of this organ of thought and feeling—this palace of the soul—its lobes, convolutions, and connexions with the nerves of the eye, ear, spinal marrow, (or medulla oblongata, as Dr Latin would have it,)* nose, &c. &c. as well as what portions of the brains of various animals are developed in accordance with their habits and characteristics. Pursue this course during childhood and youth, and every man, woman, and child would be as familiar with the names aud functions of all the organs of the body, as they are with their alphabet. These studies, besides the thrilling *interest connected* with them, will teach them how to *husband their vital resources, preserve their constitutions unimpaired through life*, and live twice as long and thrice as happily as now. For *want* of this knowledge, most children and youth, almost or quite break down their constitutions before twenty, or well nigh ruin themselves in both mind and body.

If you object that you do not *know* enough to teach all these studies, I answer, wait, and I will elsewhere tell you how, both to find the *time*, and obtain the *knowledge*, required, or else how *not to get married.*

Under the head of Locality, I cannot well forbear recommending the perusal of VOYAGES AND TRAVELS; "Stephen's Central America," is deservedly popular, but it, in common with all other travels, is sadly defective in this, that it *does not*

* I have employed some irony here and above, in order to expose what I deem the utter folly of the "*learned* world," in calling things by names which few understand. I intend to call the Phrenological organs by their English names. To write medical prescriptions in Latin, is foolish, except where all understand Latin. Away with the technicalities of science.

give the Phrenology of the present inhabitants, or of the relics observed. Add this, and the most interesting if not most instructive department of reading, would be Voyages, Travels, &c,. *by a Phrenologist*—in connexion with the manners and customs of different nations and ages. And if my life be spared, I intend eventually to travel with a view to the preparation of such works.

ORDER.

METHOD: ARRANGEMENT, SYSTEM: having a PLACE for every thing, and every thing IN its place, so that it can be found at once: system in BUSINESS, &c.

"Order is heaven's first law."

ADAPTATION. SYSTEM, OR UNIFORMITY, pervades the whole physical world, and has stamped its impress upon every work of God. Order reigns supreme in the worlds on high, and in the earth below, producing *regularity* in both. It has arranged a place for every organ of the human body, and always puts every organ of the body in its own place, so that Locality may find them, or Comparison infer where they may be found. It puts the feet always at the end of the lower extremities instead of on the top of the head or the end of the arms, and the head on the top of the body instead of on the back, or ankles, or the wrists, and systematizes all the works and operations of nature. Indeed, without this principle of *order*, or *system* in nature, all creation would be one vast bedlam—one grand chaos of "confusion worse confounded," without beauty, and marred in all its other qualities, but with this arrangement in nature, harmony usurps the reign of chaos, beauty is brought forth out of deformity, and all nature moves on with a systematic regularity as beautiful in itself as it is beneficial to man. But, without this faculty of order in man, adapted to this contrivance of system in things, though this quality might have existed and beautified all nature, yet man could not have perceived this beauty, or applied this contrivance to any beneficial purpose. But this principle exists in nature, and this faculty in man, and it is therefore his duty and pleasure to exercise it; and, its cultivation should form an important part of the education of children. And yet, that cultivation is scarcely once *thought* of.

Its primary office seems to be, to keep one's *own* things in order, and, to cultivate it, let children have things of their own,

and be told and encouraged to put things in their places—to fold and lay away their garments; to put their play-things away in the places assigned them; to lay their hat or bonnet &c., in a particular spot; to lay off their clothes at night so that they could jump into them in case of fire; to have each book in its own place and keep it whole and clean; to keep their garments whole; (and parents should never allow their children to go dressed shabbily, or with holes in their garments) and to *take care* of every thing.

That business man whose accounts are not kept straight, will most assuredly fail, and that farmer who keeps his fences up, and all his farming utensils in their places, will thrive. If farmer A tells his son John to yoke up the oxen and draw any thing, if John says: "where's the chain," or "I dont know where the yoke is," that is, if John does not know, without asking or looking, where to find the chain, or yoke, or hoe, or axe, or scythe, or sickle, or rake, &c., &c. down to the hammer and nails, mark it when you will, that farmer will get behind if not fail. But if John knows at once, just where to find whatever he wants to use, that farmer will prosper; for, this order facilitates despatch, and doubles the work done; whereas, disorder wastes every thing, and will ruin any farmer, much more a business man. Let parents note this; and, if they would see their children become prosperous and happy, *instil early into them, principles of order and despatch.*

And then again, how much more agreeably and happily that family lives in which every one knows just where to find any thing he wishes, and always returns it to its place when he has done using it. Disorder *spoils the temper*, as well as prevents success in business. Parents, see to it that you train your children in harmony with these important inferences.

The Society of Friends, usually have this organ large, and their women generally very large; and, they are among the most remarkably systematic and methodical people known This doubtless contributes largely to their thrift and uniform success in business. "Go thou and do likewise;" and "teach these things to your children, and your children's children."

This organ, combining with Time, produces regularity in all the *habits* of its possessor, lays out the time *beforehand*, giving so many hours daily to certain things, having meals punctu-

ally, retiring and rising at given periods; and being *regular* in all the habits and affairs of life. Nothing is more promotive of *health*, and *life*, and *happiness*, as well as of peace and prosperity. Mothers should begin to inculcate this in the *cradle*. Put your children to bed at a given hour—waken them at a fixed period, and they will soon awaken of themselves; give them their breakfast, or a piece, or nurse them at stated times; have them take their naps regularly at a certain hour of the day, and so have a *time* for every thing, and every thing in its time. This course will save you a vast amount of time and trouble; be of incalculable advantage to them physically and mentally; besides forming in them a *habit* of method in every thing; and save them a great deal of peevishness and bad temper. The power of habit is great indeed; far greater than is even attributed to it. A habit, indifferent in itself, may be followed so regularly, as to become really useful. What then, may not a habit, *good* in itself, do for the physical health, and the moral and intellectual advancement, of its possessor. To every parent and teacher then, I say, *form habits;* but form *good* ones, in your children.* Do not these remaks commend themselves to every parent and teacher as immensely important, and deserving of being put into vigorous practice forthwith?

If you wish to *cultivate* your own faculty of Order, be systematic. Begin and arrange all your things, tools, papers, accounts; and, every thing, and above all, remember and *replace* your things *after* using them, which, after all, is the main thing. And you, young men, in search of a wife, see to it that you do not marry a young lady who, on returning from a walk or ride, leaves her bonnet on the bed, gloves in a chair, parasol in the corner, &c.; or, who is for ever and a day in getting *ready* to go out; for, this indicates either that she cannot *find* her things, or is slow, or else is more nice than wise. If this organ be small in yourself, you need a wife in whom it is large, to assist this defect and to aid you in cultivating it; but, if it be large in yourself, you do not wish to be *continually* annoyed or tormented with its *deficiency* in a companion. Still, that companion should not have it *over* developed; for, "*enough* is as good

* I intend ere long, to collect together, and publish the *habits* of distinguished men, and recommend to my readers to observe this point.

as a feast," "and *too much* of a good thing, is worse than nothing."

This organ, combined with Ideality, gives *neatness* of person, and attends to the *outward* man. It cuts off a long beard, lays by a soiled linen, and keeps the clothes neat and clean; and, with Approbativeness large, patronizes the tailor and milliner, and chases the fashions. Phrenology discards the fashions, yet requires *personal neatness.**

Many are of opinion that this organ extends to the *mental* operations also; but I confess my conviction that its one specific function is *physical* system and arrangement. Still, I incline to the opinion that there is also an organ of *mental* order, and arrangement of *ideas*, located by the side of that of *physical* order.

SIZE.

Cognizance of BULK, MAGNITUDE, and PROPORTION: ability to judge of SIZE, LENGTH, BREADTH, HEIGHT, DEPTH, DISTANCE, the WEIGHT of things by observing their BULK, &c., &c.: judgment of ANGLES, PERPENDICULARS, DISPROPORTION, &c.: accuracy of eye in MEASURING things, &c.

ADAPTATION. The element of SIZE, or of relative MAGNITUDE, necessarily appertains to all physical substances. No material thing can exist without being relatively *large* or *small*, compared with other things. But for this element in nature, there could have been no difference between a *drop* of water and an *ocean* of water; between a *mountain* and a *mole-hill;* between a giant and a pigmy; and all conception of *big and little*, would have been inconceivable to man. And again; *with* this element in nature, though the ocean would have been larger than the rain-drop, and the mountain larger than the hillock, yet *to man*, it would all have been the same; and, he could never have distinguished his fellow-men by the size of their bodies as a whole, or any feature or portion of them. Of course, all knowledge of the relative size of the phrenological organs, would have been unknown, and Phrenology a sealed book to man. But both this element in nature, and this faculty in man, exist, and are adapted to each other; so that we are able to distinguish material things by their *size* merely; study Phrenology, and apply this facul-

* All who know me, will say, "Physician, heal thyself." "Brush up more, and look more trim and tidy." Yes, when I've nothing more *important* to do.

ty to thousands of the operations of life. The husbandman requires it to make his fences, roes of corn, furrows, swaths, &c. straight: the mechanic, so that he can often fit and measure things by his eye, and without a rule: the tailor, to guide his shears and needle; the artist, to perceive the *proportion* of parts in drawing, chiselling, &c. Indeed there is scarcely an occupation in life in which it is not eminently useful, and in most, it is *indispensable.* Hence, the importance of its proper *cultivation* even in *children;* and yet, who ever once *thinks* of *disciplining* or *exercising* this faculty, either in children, or in themselves, unless by mere *chance?*

The German teachers, have an excellent method of cultivating this faculty in their pupils, which will show parents, teachers, and all who wish to improve this faculty, *how* they can do so. It is this: the teacher takes his pupils out into the fields, woods, mountains, &c., and asks them how far it is to yonder tree, or house, or stone, or any thing else. Each pupil takes the same position, and passes his opinion, which is recorded, and then the *actual* distance is *measured,* so that each one can compare his judgment with the actual distance; and thus improve and correct his judgment as to the distance &c. Farmers can exercise this faculty in judging of the number of acres embraced in a certain enclosure; the number of bushels of grain in a certain pile, &c; drovers, butchers, &c., in judging of the *weight* of a bullock, horse, hog, &c; the carpenter, in erecting and building a house; landscape-painters and drawers, in *foreshortening,* and giving the *perspective* to the picture; portrait-painters, in making the picture the size of *life,* &c. To *improve* this faculty, *look* at things with a view to judging of, and ascertaining their qualities appertaining to this faculty.

THE STUDY OF GEOMETRY, comes as appropriately under this faculty, as under any other, though it calls nearly all the intellectual organs into exercise. This study should unquestionably form a part of *primary* education, if not even of the *plays* of children. Let even their *play-things* be so made, that they can be put together into various *geometrical-figures,* and also from the most important geometrical problems. Thus: the problem that "the squares of the sides of a rect-angle triangle,

are equal to the square of the hypotenuse," may easily be solved by having blocks, say an inch square, and taking an hypotenuse of any size, say three inches. This square will be filled by *nine* of the blocks, and the other two squares will be found to hold just nine blocks, but no more; so if the hypotenuse is four, or six, or twelve, or any other number of inches, it will take just as many blocks to fill the *long* side of any triangle, as to fill the other two. By placing with geometrical blocks, they would soon become as familiar with the names of hexagon, pentagon, cone, apex, cylinder, globe, segment, prism, &c., &c., and all the various steps that can be formed from them, as with the meaning of dinner, or bread. But plays of this character include also

CONSTRUCTIVENESS.

INGENUITY: SKILL and DEXTERITY in the use of tools: the MECHANICAL taste and talent: SLEIGHT OF HAND in making things and turning off any kind of work: ability to TINKER, MAKE, BUILD, CONSTRUCT, MANUFACTURE, USE TOOLS, &c.

ADAPTATION. Man is so constituted as to require houses, garments, machinery, agricultural and other implements and instruments, &c., &c., in order even to live, much more to be happy; and, this constructing faculty adapts him to this want or economy of his nature. In addition to this, man is emphatically a *tool-making*, and a *tool-using* animal, as well as a *working* being; and, this faculty gives him this working propensity, as well as the skill to execute most kinds of manual labor. Even the farmer and day-laborer, use this faculty in every stroke with the hoe, or axe, or scythe, and all mechanics, artists, engineers, builders, &c., employ it in every thing done with the hands or with machinery; and, other things being equal, the greater this faculty, the greater the success, and the more rapid the despatch of every kind of work.

The *utility*, as well as convenience, of this faculty, is indeed great, not to the mechanic and laborer merely, but to ALL as a means both of convenience; so that they can do many a little tinkering job for themselves better than any body else can do it for them; but, also as a means of *amusement* and healthy *exercise*. "By the sweat of thy brow, shalt thou eat bread all the days of thy life," and "Whosoever will not work, neither shall he eat," are written upon the constitution of man, as well

as on the page of Revelation; and, in accordance with this law, he is endowed with CONSTRUCTIVENESS, or the disposition and ability to WORK. Let *all* children, therefore, be taught to *labor;* the rich as means of pleasure, the poor, of support. Accordingly, this organ is large, and faculty active, in nearly all children. Let it be cultivated, not only by giving them blocks and building materials, as mentioned under Size, but also by encouraging them to make kites, wind-mills, mill-dams, water-wheels, bows and arrows, cross-guns, miniature sleds, boats, rail-roads, steam-engines, &c., and by *drawing* birds, horses, houses, landscapes, &c. Instead of this, when the boy would draw pictures on his slate, in place of ciphering, he is scolded or chastened. *Let drawing be encouraged.* I would to-day give a handsome proportion of *all I am worth*, to be able to *draw* accurately, so that I could sketch and draw exactly to suit me, such phrenological heads and illustrations as I often meet in real life; whereas now, I am compelled to obtain but few, and then to trust to artists who do not understand Phrenology.* Let children use tools, and take your knife, and be encouraged to whittle, carve, make sleds, wagons, &c., &c., and even have a shop of their own, supplied with tools with which to tinker; and this is *doubly* important to those who are *delicate*, as a means of strengthening their muscles, and drawing the blood and energies *from* their heads *to* their muscles; and equalizing their circulation. (See Phrenology applied to Education and Self-Improvement, p. 29.)

The German teachers, in addition to the cultivation of Size, already mentioned, take their pupils to a machine, and require them to *notice minutely* every part of it, from the origin of the power all the way to its expenditure, and to *remember the looks*, (Form,) *position*, (Locality,) and *office* (Eventuality,) of every part, *and to* DRAW *them after they get back;* which furnishes a most excellent exercise of nearly all the intellectual faculties. I admire this practice, and long to see it introduced into all the schools of America.

*The importance of *combining* a knowledge of Phrenology with the arts, especially with *portrait* painting and *engraving*, is very great, and too apparent to require comment. In a few years, every artist must be a Phrenologist, or be out of employ.

This also gives that exercise to their *bodies* which I have all along insisted upon as so *all* important to the development of both their physical and their intellectual powers. I advocate strongly, I even *urge* upon parents and teachers, the *peripatetic* method of teaching, namely, that of *showing* and *explaining* things to children and youth *while their* BODIES *are in* MOTION. Who does not know that his mind is far more active while his body is in motion, and his circulation increased by exercise? I write my best pieces, after having *exercised*; and, before lecturing, I walk or ride several miles *rapidly*, or chop, saw, or split wood, or do *something*, for one or two hours, to get up the *circulation*; and, then the words and ideas flow rapidly, and every one is "like a nail in a sure place." And also when I write, I usually, have a high desk, at which I stand, and a place to walk. I *walk* out an idea, and then *write* it down, and walk out another, and so on. One reason why people sleep in church is because their *bodies* are motionless, which prevents the circulation of the blood through their brain, and stupor follows. But let them stir around, and they feel wakeful and clear-headed again.

Who does not *think* more clearly, *feel* more intensely, and speak more freely and in point, when walking, or laboring, or at least, when their *bodies* are active, than when they have been sitting for *hours?* And remember that this principle applies with tenfold greater power to children, than to adults. One day of teaching such as I have described, that is having things *shown* to children while *abroad* and *on foot*, is worth a month's study in school. Aye! more, the one *deadens* the brain, and thereby *injures* the intellect, while the other powerfully *excites* the brain, and *expands* and *invigorates* the intellect. I shall elsewhere show that the relation between the body and the brain, is most *intimate*, and especially between the body and the BASE of the brain, in which the perceptive organs, or the organs of the memory, are located; and therefore, in teaching children, and even in cultivating the memory, *preserving the health* and keeping the *body* vigorous, are two of the *first* and most essential things to be attended to.